

**Project No. 1251-100**

**Crude Oil Tank Farms Project, Agrood Area 30 (Module-1)**



**Enppi**



<b>System ID</b>	<b>030-LP-002</b>
<b>System Description</b>	<b>Substation building &amp; Guard house FACP Fire detection system</b>

<b>Sr.</b>	<b>Pre-Commissioning and Commissioning Dossier Index</b>	<b>Applicable (Yes/No)</b>
<b>1</b>	<b>Mechanical Completion Certificate (MCC)</b>	
<b>2</b>	<b>Ready for Startup Certificate (RFSU)</b>	
<b>3</b>	<b>System Punch Lists</b>	
<b>4</b>	<b>System Limits Marked Up P&amp;ID</b>	
<b>5</b>	<b>System Index</b>	
<b>6</b>	<b>Piping Pre-Commissioning</b>	
	6.01) Piping Test Packs	
	6.02) Piping Pre-commissioning Check Lists	
<b>7</b>	<b>Piping Commissioning</b>	
	7.01) Service Test, GLT, CLT and N2 Purging Certificates	
	7.02) Piping Commissioning Check Lists	
<b>Sr.</b>	<b>Pre-Commissioning and Commissioning Dossier Index</b>	<b>Applicable (Yes/No)</b>
<b>8</b>	<b>Mechanical Pre-Commissioning</b>	
	8.01) System Mechanical Index	
	8.02) Equipment Drawings	
	8.03) Equipment Datasheets	
	8.04) Boxing-up Certificates	

	8.05) Grouting Certificates	
	8.06) Pre-Alignment Certificates	
	8.07) Mechanical Pre-Commissioning Checklists	
<b>9</b>	<b>Mechanical Commissioning</b>	
	9.01) Final Alignment Certificates	
	9.02) Motor Solo Run Certificates	
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	10.02) Instrument Data Sheets	
	10.03) Instrument Cable Schedule	
	10.04) System Instrumentation Wiring Diagram	
	10.05) Hook-up Drawing (Mechanical & Pneumatic)	
	10.06) Instruments Cables Schedule	
	10.07) Instruments Cables Laying Certificates	
	10.08) Instruments Cables Termination Certificates	
	10.09) Instruments Cables Testing Certificates	
	10.10) Instruments Calibration Certificates	
	10.11) Instrument Loop Checks Certificates	
	10.12) Instrumentation Pre-Commissioning Check Lists	
	10.13) Instrumentation Supplier Check Lists & Reports	
<b>11</b>	<b>Instrumentation Commissioning</b>	
	11.01) Instrumentation Function Test Certificates	
	11.02) Instrumentation Supplier Check Lists & Reports	
<b>Sr.</b>	<b>Pre-Commissioning and Commissioning Dossier Index</b>	<b>Applicable (Yes/No)</b>
<b>12</b>	<b>Electrical Pre-Commissioning</b>	
	12.01) System Electrical Index	
	12.02) Electrical Drawings	
	12.03) Motor Datasheets	
	12.04) Electrical Cables Schedule	
	12.05) Electrical Cables Laying Certificates	
	12.06) Electrical Cables Testing Certificates	
	12.07) Electrical Cables Termination Certificates	
	12.08) FAT Reports & Certificates	
	12.09) SAT Reports & Certificates	
	12.10) Electrical Pre-Commissioning Check Lists	
	12.11) Electrical Supplier Check Lists & Reports	



<b>13</b>	<b>Electrical Commissioning</b>	
	13.01) Electrical -Commissioning Check Lists	
	13.02) Electrical Supplier Check Lists & Reports	
<b>14</b>	<b>Red Marked-up Drawings</b>	
	14.01) P&ID	
	14.02) Instrumentation Drawings	
	14.03) Electrical Drawings	







Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 1-Mechanical Completion Certificate (MCC)

## SYSTEM MECHANICAL COMPLETION CERTIFICATE (MCC)

**PROJECT TITLE** : CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

**PROJECT No** : 01251-100

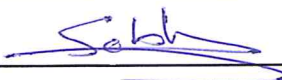

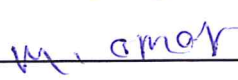
**SYSTEM NAME** : Substation building & Guard house FACP Fire Detection System

**SYSTEM ID** : 030-LP-002

**THIS IS TO CERTIFY THAT:**

- THE ABOVE SYSTEM HAS BEEN FABRICATED, ERECTED, INSTALLED AND TESTED TO THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS, THE APPLICABLE CODES AND STANDARDS.
- ALL PRE-COMMISSIONING RELEVANT ACTIVITIES, TESTS, INSPECTIONS AND CHECKS HAVE BEEN CARRIED OUT FOR THIS SYSTEM AND FOUND ACCEPTABLE.
- Q/C DOCUMENTATION OF THE ABOVE SYSTEM HAS BEEN AUDITED BY THE CUSTOMER SITE QUALITY CONTROL AND FOUND COMPLETED.
- ALL PUNCH LIST ITEMS CATEGORY (A) IN THIS SUBSYSTEM WERE CLEARED.
- THIS SYTEM IS MECHANICALLY COMPLETED ON THE DATE AND READY FOR COMMISSIONING (RFC) WITH THE FOLLOWING EXCEPTIONS.

**EXCEPTIONS :**

COMPANY	PETROJET	ENPPI	PMC
NAME	Sobhy Seleem	Mohamed Abbas	mohamed amar
TITLE	E&I Qc Engineer	Constr. Mgr.	I. Engineer
SIGNATURE			
DATE	10/11/2021		





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 2- Ready for Startup Certificate (RFSU)

## READY FOR START UP CERTIFICATE

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT (AGROOD-02)

**PROJECT No.** : 1251-100

**SYSTEM /AREA /PLANT** : Substation building & Guard house FACP Fire detection system


**SYSTEM /AREA /PLANT No.** : 030-LP-002

**THIS IS TO CERTIFY THAT:**

- THE MENTIONED SYSTEM /AREA /PLANT IS READY FOR START UP WHERE ALL MECHANICAL WORKS, PRECOMMISSIONING AND COMMISSIONING ACTIVITIES HAVE BEEN SUCCESSFULLY COMPLETED.
- MECHANICAL COMPLETION CERTIFICATE(S) FOR THE MENTIONED SYSTEM / AREA / PLANT HAVE BEEN SIGNED.
- ISSUANCE OF THIS READY FOR START UP CERTIFICATE(S) SHALL NOT RELIEVE CONTRACTOR(S) FROM THEIR OBLIGATIONS TO COMPLETE THE REMAINING SYSTEMS NOR FROM THEIR WARRANTY OBLIGATIONS AND OTHER PROVISIONS OF THE CONTRACT.
- THE FOLLOWING EXCEPTIONS AGREED TO BE CLEARED AFTER START UP AND WILL NOT PREVENT START UP ACTIVITIES.

**EXCEPTIONS:**

\*FACP for Guard house system not finalized yet.

COMPANY	CONSORTIUM	PPC
NAME	Ahmed El Shorfi	Mohamed Omar
TITLE	Commissioning Manager	I. Engineer
SIGNATURE		M. Omar
DATE	2-9-2021	5.9.2021





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 3- System Punch Lists

PROJECT TITLE : CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

**PROJECT NUMBER : 01251-100**

**DISCIPLINE: Loss Prevention**

**SYSTEM NAME: Substation Building & Guard House FACP Fire Detection System**





**SYSTEM ID: 030-LP-002**

**SUB-SYSTEM NAME:**

SUB-SYSTEM ID:

[illegible]

CAT: CATEGORY(A,B,C) ,ACTION BY: (ENPPI,CONST.CONTRACTOR,SUPPLIER.....) , DISP: DISCIPLINE(PIP,MECH,ELECT,INST.....)

COMPANY	PTJ	ENPPI	PMC
NAME	Sobhy Saleem	 	
SIGN.			
DATE	30-5-2021		





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

#### 4- System Limits Marked Up P&ID



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 5- System Index



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 6- Piping Pre-Commissioning



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 6.01- Piping Test Packs





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 6.02- Piping Pre-commissioning Check Lists



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 7- Piping Commissioning



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 7.01- Service Test, GLT, CLT and N2 Purging Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 7.02- Piping Commissioning Check Lists





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
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## 8- Mechanical pre-Commissioning



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.01- System Mechanical Index



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.02- Equipment Drawings



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID

030-LP-002

System Description

Substation building & Guard house FACP Fire detection system

### 8.03- Equipment Datasheets





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.04- Boxing-up Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.05- Grouting Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.06- Pre-Alignment Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 8.07- Mechanical Pre-Commissioning Checklists





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 9- Mechanical Commissioning



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 9.01- Final Alignment Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID

030-LP-002

System Description

Substation building & Guard house FACP Fire detection system

## 9.02- Motor Solo Run Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 9.03- Mechanical Run Test (MRT) Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 9.04- Mechanical Commissioning Checklists



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 9.05- Mechanical Supplier Check Lists & Reports





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10- Instrumentation Pre-Commissioning



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.01- System Instrument Index



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.02- Instrument Data Sheets



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 10.03- Instrument Cable Schedule



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.04- System Instrumentation Wiring Diagram



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.05- Hook-up Drawing (Mechanical & Pneumatic)





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.06- Instruments Cables Schedule



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.07- Instruments Cables Laying Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.08- Instruments Cables Termination Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.09- Instruments Cables Testing Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.10- Instruments Calibration Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.11- Instrument Loop Checks Certificates





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 10.12- Instrumentation Pre-Commissioning Check Lists

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-001

**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE	Sobh	® Islam Sherrif	M. omer
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-002

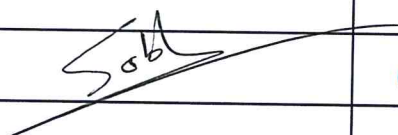
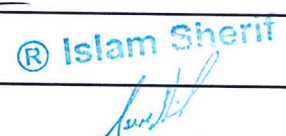
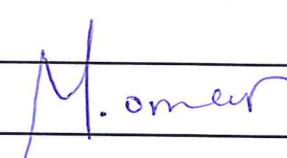
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-003

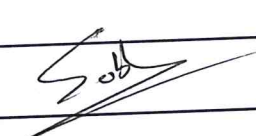
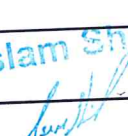
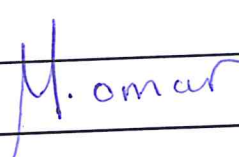
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif 	M. Omar 
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-004

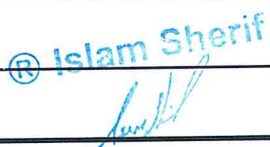
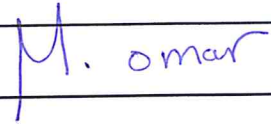
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-005

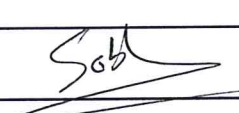
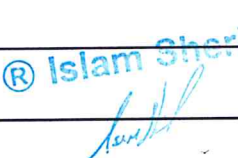
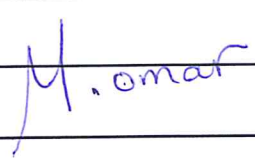
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-006

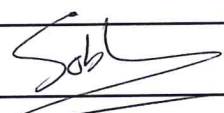
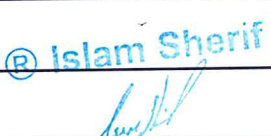
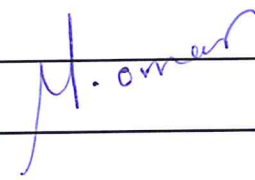
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-007

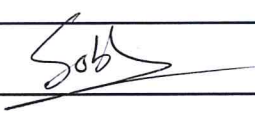
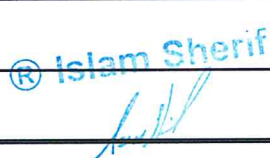
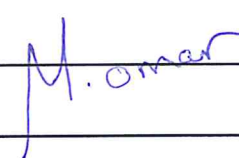
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

PROJECT TITLE : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Loss Prevention

SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SYSTEM ID : 030-LP-002

SUB-SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SUB-SYSTEM ID : 030-LP-002

ITEM TAG No. : 030-SUB-SD-008

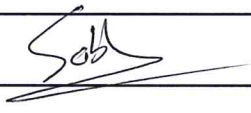

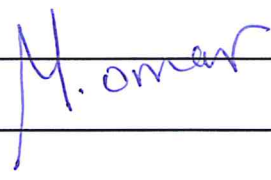
AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-009


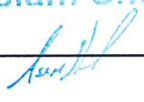
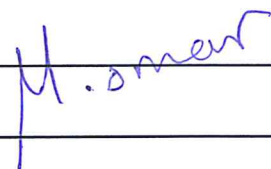
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-010



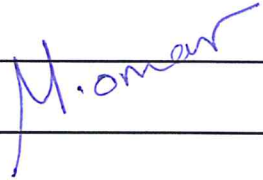
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-011

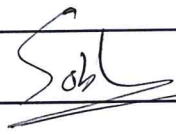

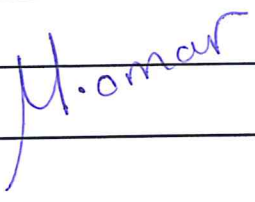
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif 	
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-012

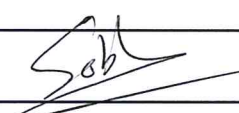
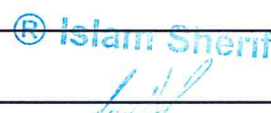
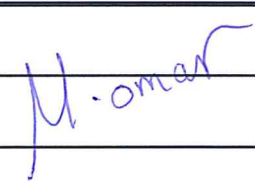
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-013



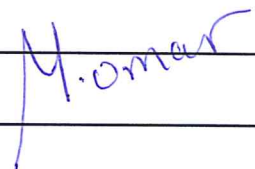
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-014

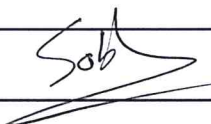

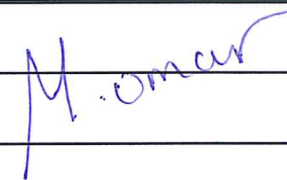
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif 	
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-015


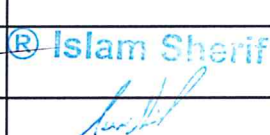

**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100 **DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System **SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System **SUB-SYSTEM ID** : 030-LP-002

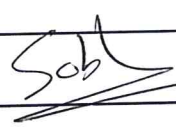

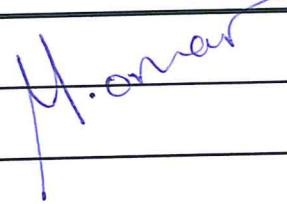
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**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100 **DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System **SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System **SUB-SYSTEM ID** : 030-LP-002

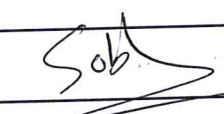
**ITEM TAG No.** : 030-SUB-SD-017 **AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-018

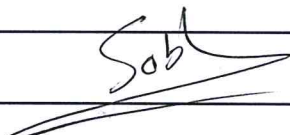
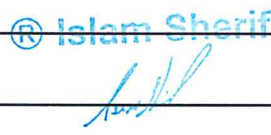
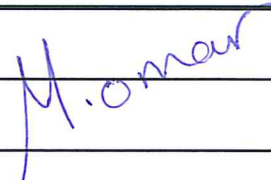
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-019

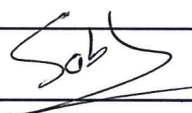

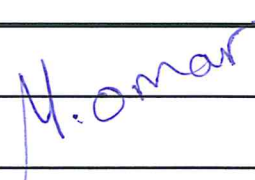
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-020

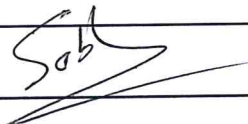
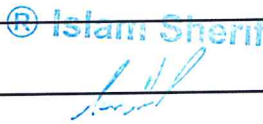
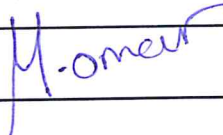
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-021


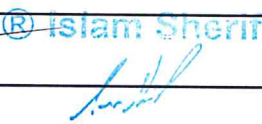
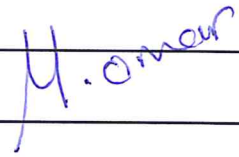
**AREA** : 30

**REF. DWGS/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT, AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-022

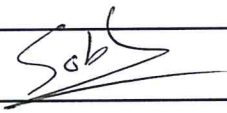
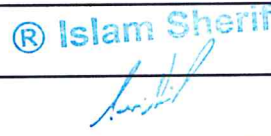
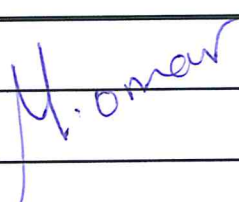
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		 ® Islam Sherif	
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-023

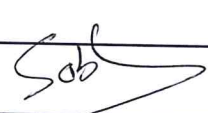
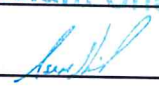
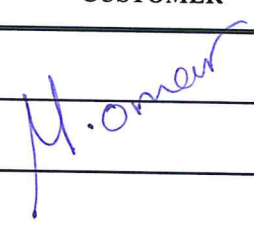
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

PROJECT TITLE : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Loss Prevention

SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SYSTEM ID : 030-LP-002

SUB-SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SUB-SYSTEM ID : 030-LP-002

ITEM TAG No. : 030-SUB-SD-024


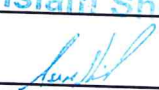
AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	M. omer
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-025

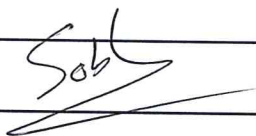

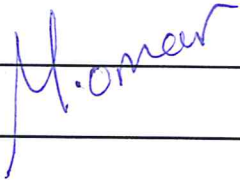
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-026

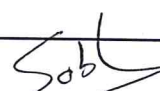

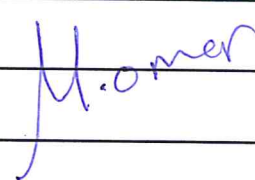
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-027

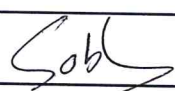
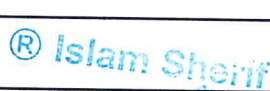
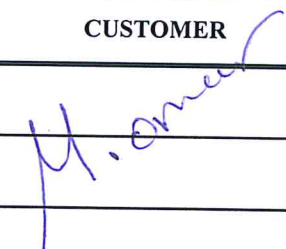
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-028

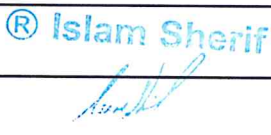
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-029

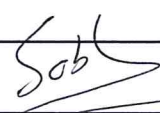
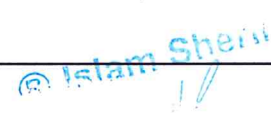
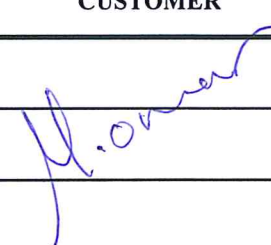
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST FIRE AND GAS CABLES LP-11 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARM - AGROOD AREA

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-001-Cable

**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	/	
2	Check cables are correctly fixed to trays and supports.	/	
3	Check cables through walls or ceilings are correctly sealed.	/	
4	Check that all cables (power/ control) are installed in accordance with cable lists and approved documents.	/	
5	Check identification tags of all conductors and wires.	/	
6	Check connection, tightness, termination and joints of cables are correctly executed.	/	
7	Check where conductors have been terminated using crimped connections; ensure the correct size and type of crimping lugs.	/	
8	Check that the bending radius of cables is not less than the minimum established.	/	
9	Cable markers to be installed before covering buried cables or cables in cable trays.	/	
10	Tie wraps to be used for cable and wires fixation.	/	
11	Cable connections shall be torque tested.	N/A	

**REMARKS AND OBSERVATIONS :**

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		for / shake	
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST FIRE AND GAS CABLES LP-11 A

PROJECT TITLE : EGPC CRUDE OIL TANK FARM - AGV 001 AREA

PROJECT NUMBER : 1251-100

DISCIPLINE : Loss Prevention

SYSTEM NAME : Substation building & Guard house FACP Fire Detection system

SYSTEM ID : 030-LP-002

SUB-SYSTEM NAME : Substation building & Guard house FACP Fire Detection system

SUB-SYSTEM ID : 030-LP-002

ITEM TAG No. : 030-Sub-SD-001-Cable

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Check that buried cables are correctly covered and protected.	✓	
13	Trench markers to be checked w.r.t approved documents.	✓	
14	Check cable glands for tightness & check the correct type of gland has been used for the size and type of installed cables.	✓	
15	Inspect cable laid in trenches, segregation and protection.	✓	
16	Cables to be tested (continuity/insulation resistance). (*)	✓	
17	Equipment test report and inspection certificate to be-checked.	✓	
18	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	✓	
19	Calibration test certificate of testing equipment to be checked.	✓	
		✓	
		N/A	
		✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		For / Shah	
SIGNATURE			M. Omar
DATE			

## PRE-COMMISSIONING CHECK LIST FIRE AND GAS CABLES LP-11 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARM - AGROOD AREA

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-GH-MCP-001-Cable

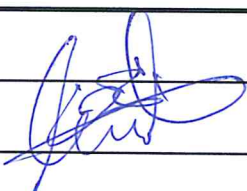
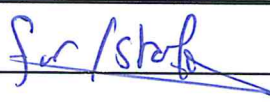
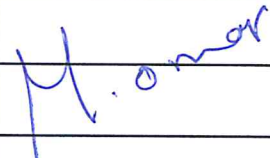
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	/	
2	Check cables are correctly fixed to trays and supports.	/	
3	Check cables through walls or ceilings are correctly sealed.	/	
4	Check that all cables (power/ control) are installed in accordance with cable lists and approved documents.	/	
5	Check identification tags of all conductors and wires.	/	
6	Check connection, tightness, termination and joints of cables are correctly executed.	/	
7	Check where conductors have been terminated using crimped connections; ensure the correct size and type of crimping lugs.	/	
8	Check that the bending radius of cables is not less than the minimum established.	/	
9	Cable markers to be installed before covering buried cables or cables in cable trays.	/	
10	Tie wraps to be used for cable and wires fixation.	/	
11	Cable connections shall be torque tested.	N/A	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		Sar / Slob	
SIGNATURE			
DATE			



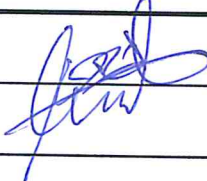

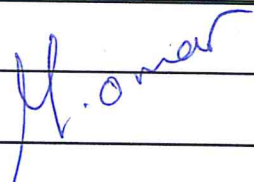
## PRE-COMMISSIONING CHECK LIST FIRE AND GAS CABLES LP-11 A

PROJECT TITLE : EGPC CRUDE OIL Tank Farm - AGROOD AREA	
PROJECT NUMBER : 1251-100	DISCIPLINE : Loss Prevention
SYSTEM NAME : Substation building Guard house EACP Fire Detection system	SYSTEM ID : 030-LP-002
SUB-SYSTEM NAME : Substation building Guard house EACP Fire Detection system	SUB-SYSTEM ID : 030-LP-002
ITEM TAG No. : 030-QH-MCP-001 Cable	AREA : 30
REF. DWGs/DOCs :	

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Check that buried cables are correctly covered and protected.	✓	
13	Trench markers to be checked w.r.t approved documents.	✓	
14	Check cable glands for tightness & check the correct type of gland has been used for the size and type of installed cables.	✓	
15	Inspect cable laid in trenches, segregation and protection.	✓	
16	Cables to be tested (continuity/insulation resistance). (*)	✓	
17	Equipment test report and inspection certificate to be-checked.	✓	
18	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N/A	
19	Calibration test certificate of testing equipment to be checked.	✓	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-030

**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		 @ Islam Sherif	
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-031

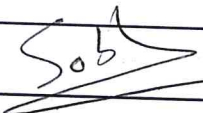
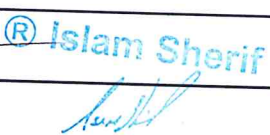
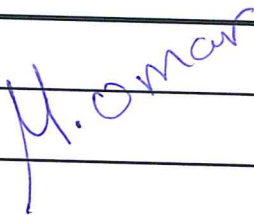
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

PROJECT TITLE : EGPC CRUDE OIL TANK FARMS PROJECT, AGROOD AREA 030 (MODULE 01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Loss Prevention

SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SYSTEM ID : 030-LP-002

SUB-SYSTEM NAME : Substation building & Guard house FACP  
Fire Detection System

SUB-SYSTEM ID : 030-LP-002

ITEM TAG No. : 030-SUB-SD-032

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-033


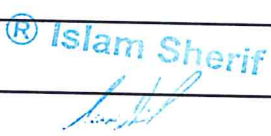
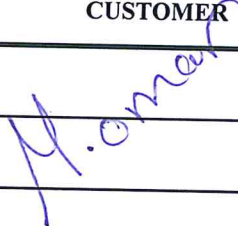
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.		
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-034

**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-035

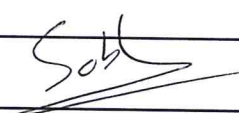

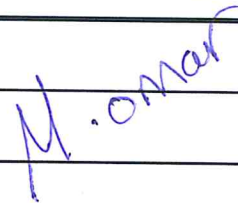
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

### REMARKS AND OBSERVATIONS :

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		 <b>® Islam Sherif</b>	
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-036

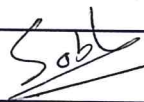

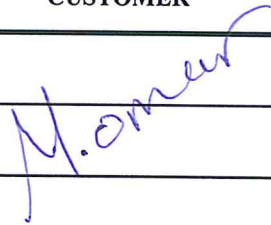
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-037

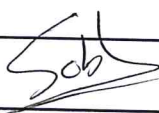

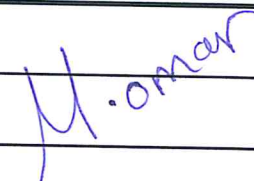
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME		® Islam Sherif	
SIGNATURE			
DATE			



## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-038

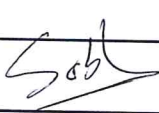
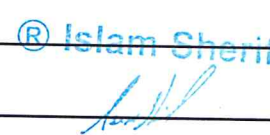
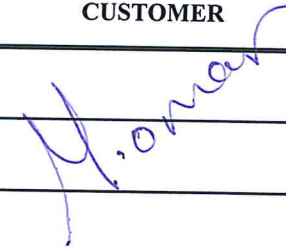
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	/	
1.2	Detector placed in the correct elevation as per the distribution drawings.	/	
1.3	Detector mounted in the correct orientation as per common engineering practice.	/	
1.4	Outlet tags are according to the drawing & correctly placed.	/	
1.5	Detector is in good condition and has no physical/mechanical damage.	/	
1.6	Detector is properly fixed.	/	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	/	
1.8	Check accessibility for maintenance.	/	
1.9	Check that there are no missing parts.	/	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	/	

### REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

## PRE-COMMISSIONING CHECK LIST DETECTOR LP-13 A

**PROJECT TITLE** : EGPC CRUDE OIL TANK FARMS PROJECT , AGROOD AREA 030 (MODULE 01)

**PROJECT NUMBER** : 1251-100

**DISCIPLINE** : Loss Prevention

**SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SYSTEM ID** : 030-LP-002

**SUB-SYSTEM NAME** : Substation building & Guard house FACP  
Fire Detection System

**SUB-SYSTEM ID** : 030-LP-002

**ITEM TAG No.** : 030-SUB-SD-039


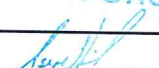
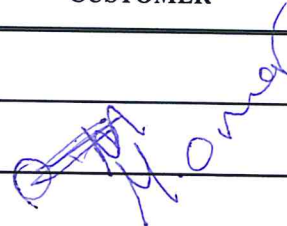
**AREA** : 30

**REF. DWGs/DOCs** :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
<b>1</b>	<b>FIRE AND GAS DETECTOR:</b>		
1.1	Detector placed in the correct location as per the distribution drawings.	✓	
1.2	Detector placed in the correct elevation as per the distribution drawings.	✓	
1.3	Detector mounted in the correct orientation as per common engineering practice.	✓	
1.4	Outlet tags are according to the drawing & correctly placed.	✓	
1.5	Detector is in good condition and has no physical/mechanical damage.	✓	
1.6	Detector is properly fixed.	✓	
1.7	Detector type and model number are as mentioned in the drawings/purchase order.	✓	
1.8	Check accessibility for maintenance.	✓	
1.9	Check that there are no missing parts.	✓	
1.10	Check/perform Pre-comm. check lists for all cables connected/wired to the outlet.	✓	

**REMARKS AND OBSERVATIONS :**

**OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.**

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE		® Islam Sherif 	
DATE			



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 10.13- Instrumentation Supplier Check Lists & Reports



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 11- Instrumentation Commissioning





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 11.01) Instrumentation Function Test Certificates

<b>MINUTES OF MEETING</b>	<b>PROJECT TITLE :</b> EGPC Crude Oil Tank Farms Project (AGROOD 30)	
	<b>PROJECT No :</b> 1251-100	<b>DATE :</b> 1-9-2021
	<b>CUSTOMER :</b> EGPC (PPC)	
<b>LOCATION :</b> Agrood, Suez, EGYPT		<b>MEETING DATE :</b> 1-9-2021
<b>WRITTEN BY :</b> Mohamed Gamal		<b>DEPARTMENT :</b> Commissioning & Startup
<b>MEETING No :</b> [MEETING No]		<b>FILE No :</b>
<b><u>PURPOSE OF MEETING:</u></b>		
Fire Alarm Control Panel (FACP) at Agrood Area 30 Commissioning and Start-up.		
<b><u>ATTENDEES:</u></b>		
<b><u>ENPPI</u></b>	<b><u>PETROJET</u></b>	<b><u>PPC</u></b>
Mohamed Gamal	Sobhy Seleen	Mohamed omar
for L. Elbaky	Sob	M. omar
<b><u>DISTRIBUTION:</u></b>		

## MINUTES OF MEETING (Cont'd)

PROJECT No : 1251-100

MEETING No : [MEETING No]

MEETING DATE : 1-9-2021

ITEM No	DESCRIPTION OF DISCUSSION	ACTION BY	DATE
	<ul style="list-style-type: none"> <li>This close-out meeting was held between ENPPI, PETROJET and PPC to certify the completion of commissioning and startup works for FACP at Agrood area 30.</li> <li>Commissioning of FACP includes but not limited to the following:               <ol style="list-style-type: none"> <li>1. Power-up for FACP panel</li> <li>2. Troubleshooting for all FACP devices.</li> <li>3. Cause &amp; Effect verification for FACP for substation building <b><u>except the battery room.</u></b></li> </ol> </li> <li>Signing off this MOM does not relieve any contractor from their contractual obligations.</li> </ul>		

<b>MINUTES OF MEETING</b>	<b>PROJECT TITLE :</b> EGPC Crude Oil Tank Farms Project (AGROOD 30) (Module 01)							
	<b>PROJECT No :</b> 1251-100	<b>DATE :</b> 5-9-2021						
	<b>CUSTOMER :</b> EGPC (PPC)							
<b>LOCATION :</b> Agrood, Suez, EGYPT		<b>MEETING DATE :</b> 5-9-2021						
<b>WRITTEN BY :</b> Ahmed El Shafie		<b>DEPARTMENT :</b> Commissioning & Startup						
<b>MEETING No :</b> [MEETING No]		<b>FILE No :</b>						
<b><u>PURPOSE OF MEETING:</u></b>  <p style="text-align: center;">Fire &amp; Gas Cause &amp; Effect Verification Finalization for Agrood Area 30 (Module-01)</p>								
<b><u>ATTENDEES:</u></b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 33%;"><b><u>ENPPI</u></b></td> <td style="text-align: center; width: 33%;"><b><u>PETROJET</u></b></td> <td style="text-align: center; width: 33%;"><b><u>PPC</u></b></td> </tr> <tr> <td style="text-align: center;">Ali Ashraf</td> <td style="text-align: center;">Sathyaseelan</td> <td style="text-align: center;">M. Omar</td> </tr> </table>			<b><u>ENPPI</u></b>	<b><u>PETROJET</u></b>	<b><u>PPC</u></b>	Ali Ashraf	Sathyaseelan	M. Omar
<b><u>ENPPI</u></b>	<b><u>PETROJET</u></b>	<b><u>PPC</u></b>						
Ali Ashraf	Sathyaseelan	M. Omar						
<b><u>DISTRIBUTION:</u></b>  								



MINUTES OF MEETING (Cont'd)			
PROJECT No : 1251-100		MEETING No : [MEETING No]	MEETING DATE : 5-9-2021
ITEM No	DESCRIPTION OF DISCUSSION	ACTION BY	DATE
	<ul style="list-style-type: none"> <li>• This close-out meeting was held between ENPPI, PETROJET and PPC to certify the completion of Fire and gas cause-and-effect verification for Agrood area 30 entirely.</li> <li>• Fire and gas cause-and-effect verification have been tested, witnessed, and approved by PPC.</li> <li>• Signing off this MOM does not relieve any contractor from their contractual obligations.</li> </ul> <p><b>Exceptions:</b></p> <p>* GD-013 shall be fixed (cleared) Sobhy</p> <p>* 2 smoke detectors in battery rooms.</p> <p>* 4 Gas detectors ZAM modules.</p>		
	<p>Enppi      petrojet      PPC</p> <p>Ali Ashraf      Sobhydeen      M. Omar</p>		



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 11.02- Instrumentation Supplier Check Lists & Reports



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12- Electrical Pre-Commissioning

System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.01- System Electrical Index









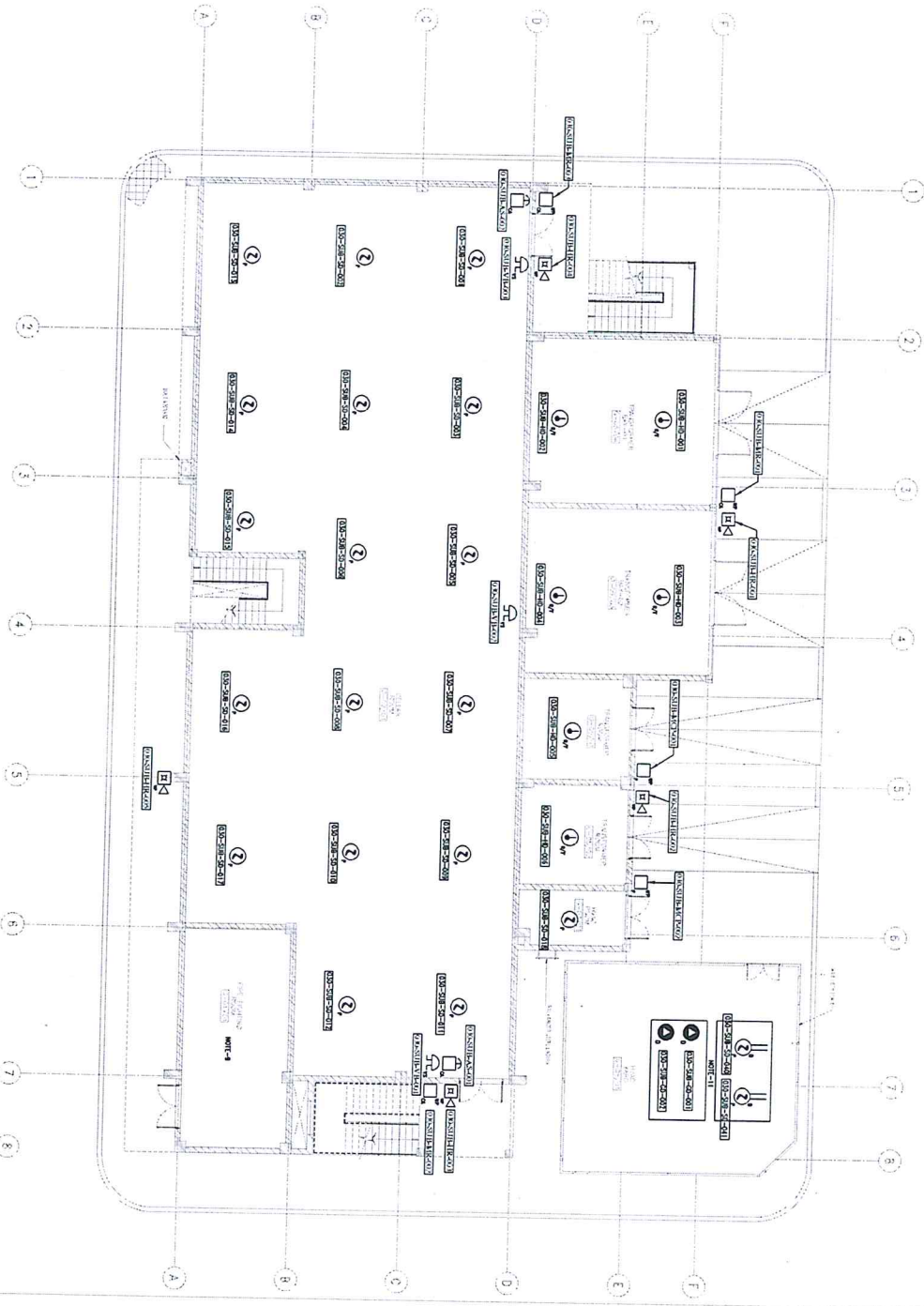


Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.02- Electrical Drawings



CELLAR FLOOR PLAN

REFERENCES	
DOCUMENT NUMBER	DESCRIPTION
1251-100-030-SUB-C00	DATA-CAN) AEC000-1 SUBSTATION AND CONCRETE RECON BUILDING
AEC000-1	

1. WE DO NOT HAVE A DEFINITIVE, POSITIVE OR NEGATIVE ANSWER TO THE QUESTION OF WHETHER OR NOT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.
2. THE PROBLEM OF WHETHER THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS IS LOGICALLY EQUIVALENT TO THE QUESTION OF WHETHER THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF COMPLEX NUMBERS.
3. CONJECTURE: ON A RANDOM SET OF REAL NUMBERS, THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.
4. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF COMPLEX NUMBERS.
5. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.
6. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF COMPLEX NUMBERS.
7. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.
8. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF COMPLEX NUMBERS.
9. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.
10. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF COMPLEX NUMBERS.
11. THE CONJECTURE OF THE PREVIOUS PARAGRAPH IS LOGICALLY EQUIVALENT TO THE CONJECTURE THAT THERE ARE INFINITE NON-ALGEBRAICALLY DEPENDENT SETS OF REAL NUMBERS.

SYMBOL	DESCRIPTION
	SAFETY DETECTOR (PERIODICALLY)
	DOOR SAFETY DETECTOR (PERIODICALLY)
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[illegible]

**EGPC**  
ETHEL GORDON PUGH CENTER

EGPC	
EGPC CODE No. 1 000	EGPC CODE No. 1 000
EGPC CRUDE OIL TANK CARD	EGPC CRUDE OIL TANK CARD

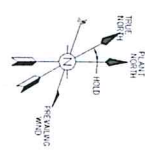
(AREA-030) AGROOD-1 SUBSTATION  
AND CONTROL BUILDING CELLAR FLOOR  
FIRE AND GAS DETECTION SYSTEM LAYOUT

لورکۂ اہدائی لطافت لڑائی و کھمباری  
**Happy** ایجی

NAME	ADDRESS	CITY	STATE	ZIP
ALL	10101 10101 10101 10101 10101	10101	10101	10101
NONE	01231-100-030-AFD-006	01/01	1	







GROUND FLOOR PLAN  
SCALE 1:100

REFERENCES	
DOCUMENT NUMBER	DESCRIPTION
01251-100-030-000-008	CODE ON THE FIRM PROJECT CRUDE OIL

LEGEND:

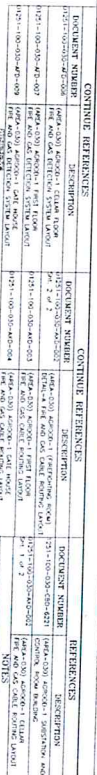
SYMBOL	DESCRIPTION	QTY
	DRY CHEMICAL EXTINGUISHER (7.7 kg)	1
	CO2 EXTINGUISHER (6.8 kg)	1

EGPC	
THE EGYPTIAN GENERAL PETROLEUM CO.	
EGPC	
NO. 14 EGYPTIAN GENERAL PETROLEUM CO. (EGPC)	
AT : 90 3908	

CRUDE OIL TANK FARM PROJECT  
SUBSTATION BUILDING  
FIRE FIGHTING LAYOUT  
CELLAR FLOOR PLAN

EGPC  
ENGINEERING FOR THE PETROLEUM AND MINES INDUSTRIES  
EGPC

SCALE	1 OF 1	0
NOTE	01251-100-030-000-008	1

[illegible]





TO SUB-FIM-004



F2 CABLES (1X2X2.5 MM2)

FROM NAC -10  
TO NAC 20

NONE	01251-100-
------	------------



# Happy

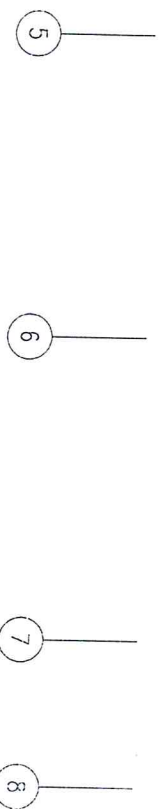
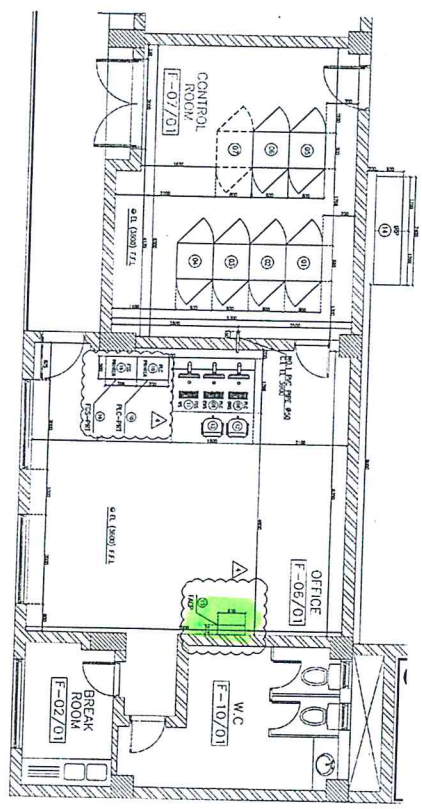
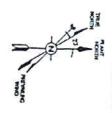
NONE	01251-100-030-AXD-002	02/02
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100







EQUIPMENT LIST		
ITEM	EQUIPMENT	DESCRIPTION
01	001-ATC-SC-001/002	ATC SC-001/002
02	001-ATC-SC-002/003	ATC SC-002/003
03	001-ATC-SC-003/004	ATC SC-003/004
04	001-ATC-SC-004/005	ATC SC-004/005
05	001-ATC-SC-005/006	ATC SC-005/006
06	001-ATC-SC-006/007	ATC SC-006/007
07	001-ATC-SC-007/008	ATC SC-007/008
08	001-ATC-SC-008/009	ATC SC-008/009
09	001-ATC-SC-009/010	ATC SC-009/010
10	001-ATC-SC-010/011	ATC SC-010/011
11	001-ATC-SC-011/012	ATC SC-011/012
12	001-ATC-SC-012/013	ATC SC-012/013
13	001-ATC-SC-013/014	ATC SC-013/014
14	001-ATC-SC-014/015	ATC SC-014/015
15	001-ATC-SC-015/016	ATC SC-015/016
16	001-ATC-SC-016/017	ATC SC-016/017

0 0.5 1 2 3 4 5m  
SCALE 1:50  
GRAPHIC SCALE

DOCUMENT NUMBER: 01251-100-030-001-001

DESCRIPTION: CRUDE OIL TANK PROJECT CONTROL ROOM EQUIPMENT LAYOUT

AGROD AREA (MODULE-1)

1. ALL DIMENSIONS AND LEVELS ARE IN METERS.

2. TOS CHART INCLUDES TOS WORKSTATION AND TOS PRINTER.

LEGEND

- CABINET (600x800mm)
- CABINET (800x800mm) - TUNDE
- PAC PFE

ABBREVIATION

- EMS: ENGINEERING WORKSTATION
- FACP: FIRE ALARM CONTROL PANEL
- FCS: FIRE AND GAS SYSTEM
- IPP: INTERFACING RELAY PANEL
- OWS: OPERATION WORKSTATION
- PLC: PROGRAMMABLE LOGIC CONTROLLER
- PRN: PRINTER
- TCS: TANK GAUGE SYSTEM

THE CRUDE OIL TANK PROJECT

CRUDE OIL TANK PROJECT

AGROD AREA (MODULE-1)

CONTROL ROOM EQUIPMENT LAYOUT

SCALE: 1/50

DATE: 01/25/10

PROJECT: 01251-100-030-001-001

1

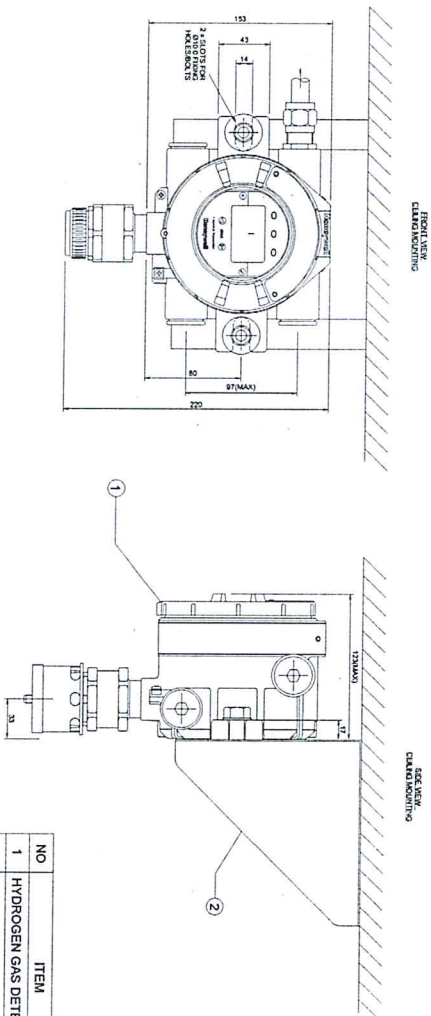
2

3

4

# H2 GAS DETECTOR

## "XNX transmitter with MPD Sensor"



NO	ITEM
1	HYDROGEN GAS DETECTOR
2	CEILING MOUNT KIT
3	SUPPORT BASE PLATE
4	CABLE GLAND M20
5	ADAPTOR 3/4" NPT (F) X M25 (M)
6	F&G CABLE
7	EMT CONDUIT
8	EX BLANKING PLUG M20
9	CABLE GLAND 3/4" NPT
10	SUPPORTS

REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	S.P.A.

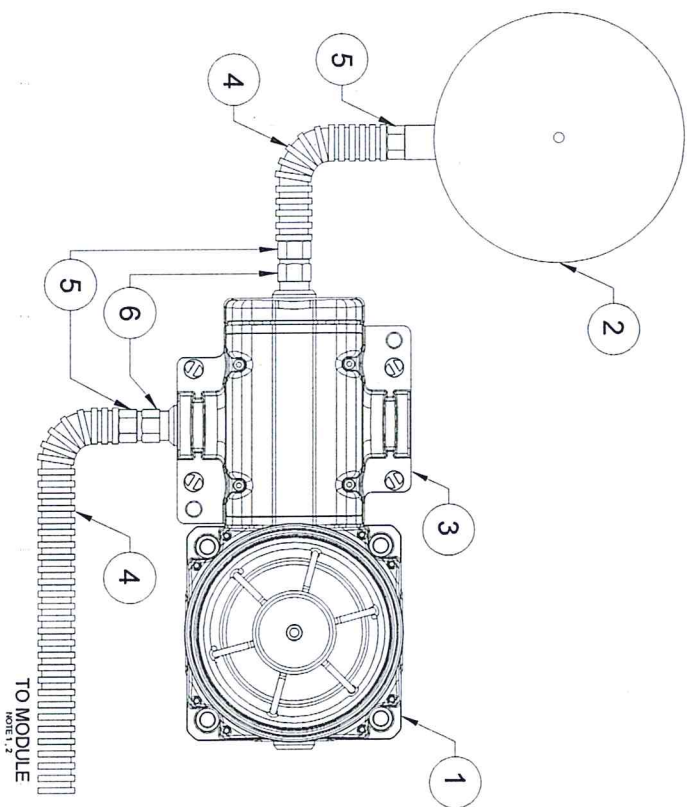
المكتب الهندسي البترول والكيماويات  
**Enppi**  
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES  
ENPPI PROJECT NUMBER 4176-503

Project Name: EGPC CRUDE OIL TANK FARM

DRAWING TITLE			
INSTRUMENT TERMINATION AND HOOK UP DETAILS			
SCALE	DRAWING NUMBER	SHEET NUMBER	REVISION



EXPLOSION PROOF VIBRATING BELL C/W STROBE



NO	ITEM
1	GLOBAL LED LIGHT, RED
2	FIRE ALARM BELL
3	FLAME COMPARTMENT
4	FLEXIBLE EXIST CONNECTION
5	EX-PROOF CONNECTION
6	EX-PROOF (1/2) ADAPTOR/ADAPTOR

NOTES

- 1) IF MODULE IS LOCATED OUTSIDE THE ROOM INDICATED TO DETECTION LAYOUT AND INSIDE ANOTHER ROOM, MAKE SURE TO INSTALL THE DEVICE TO THE WALL BACK TO THE MODULE.
- 2) IF MODULE IS LOCATED INSIDE THE ROOM INDICATED TO DETECTION LAYOUT, MAKE SURE DEVICE LOCATION IS AS PER LAYOUT.

REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	S.P.A.

الهيئة العامة للغذاء والدواء  
**Enppi**  
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES  
ENPPI PROJECT NUMBER 417/6-503

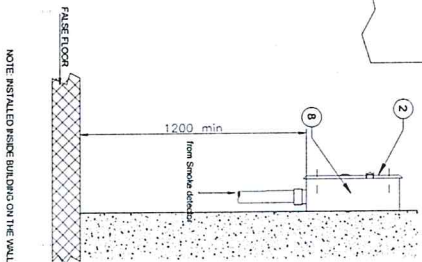
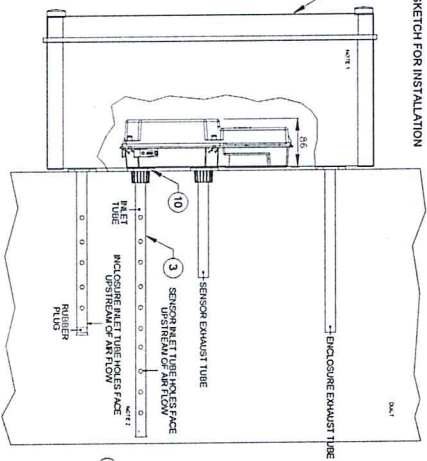
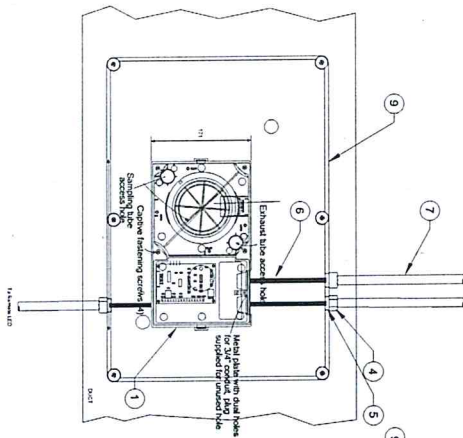
Project Name: EGPC CRUDE OIL TANK FARM

DRAWING TITLE  
INSTRUMENT TERMINATION AND  
HOOK UP DETAILS

SCALE DRAWING NUMBER SHEET NUMBER PERSON

DUCT ADDRESSABLE OPTICAL PHOTOELECTRIC SMOKE DETECTOR

NO	ITEM
1	DUCT SENSOR HOUSING
2	REMOTE TEST STATION (RED LED) N.Y. SW
3	SAMPLING TUBE
4	CABLE CLAMP (NO)
5	LOCKWASHER
6	LOCK WASHER
7	LOCK WASHER
8	LOCK WASHER
9	LOCK WASHER
10	LOCK WASHER



NOTE: INSTALLED INSIDE BUILDING ON THE WALL

NOTES

- 1) DEVICE SHALL BE INSTALLED INTO THE COMMON SUPPLY DUCT AFTER THE PLENUM.
- 2) SENSOR AND ENCLOSURE INLET TUBE HOLES SHALL FACE UPSTREAM OF AIR FLOW.
- 3) REMOTE TEST LED SHALL BE INSTALLED INSIDE SWITCHGEAR TO THE WALL BEHIND THE LOCATION OF THE DEVICE WITH AN ELEVATION OF 1.50 METERS FROM THE FLOOR.

REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	S.A.

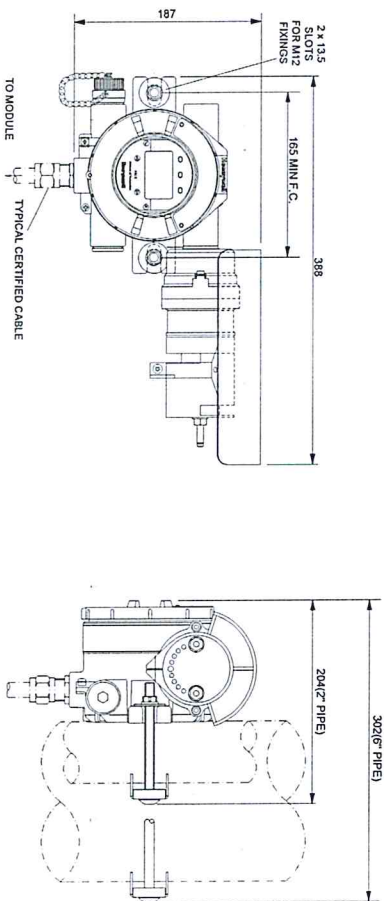
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**Enppi**  
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES  
ENPP PROJECT NUMBER 417/6-503

Project Name: EGPC CRUDE OIL TANK FARM

INSTRUMENT TERMINATION AND  
HOOK UP DETAILS

SCALE	DRAWING NUMBER	SHEET NUMBER	REVISION
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# COMBUSTIBLE GAS DETECTOR



## NOTES

- 1) DEVICE SHALL BE INSTALLED TO A POLE WITH 2" DIAMETER.
- 2) ELEVATION OF DEVICE SHALL BE AS PER SITE CONDITIONS TO FIT THE DEVICE IN FRONT OF AND AT THE CENTER OF FRESH AIR INTAKE WITH A DISTANCE OF 30 TO 40 CM AWAY FROM IT.
- 3) A DEVICE SHALL BE INSTALLED AS PER NOTE 2 FOR EACH HVAC UNIT.
- 4) MODULE SHALL BE INSTALLED INDOOR TO THE WALL BEHIND THE DEVICE.

[illegible]

البركة العامة للخدمات والمنتجات  
**Enppi**  
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES  
ENPPI PROJECT NUMBER 4176-503

Project Name: EGPC CRUDE OIL TANK FARM

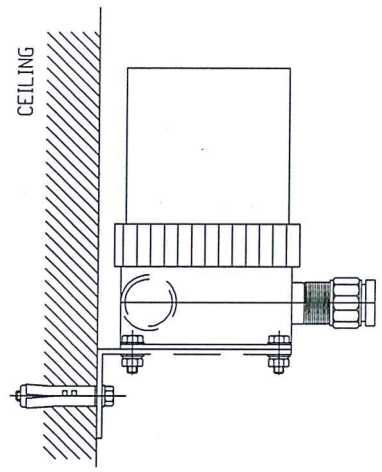
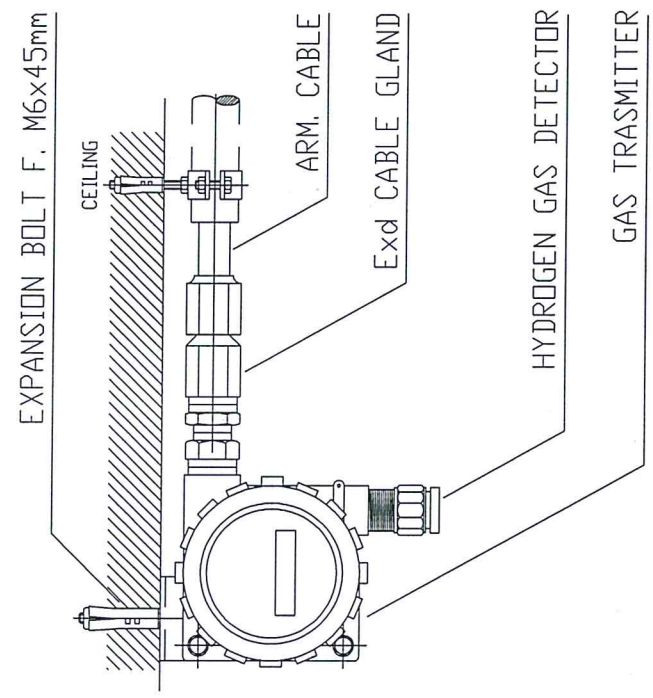
DRAWING TITLE

INSTRUMENT TERMINATION AND  
HOOK UP DETAILS

SCALE	DRAWING NUMBER	SHEET NUMBER	REVISION
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DOCUMENT NUMBER	REFERENCES DESCRIPTION

NOTES



P.O. No. : 1251-100-196-10-33	MANUFACTURER: Honeywell	HYDROGEN GAS DETECTOR (BLDG)
P.O ITEM No.: 4.5	MODEL No. : XNX-UTSV-NNCB1	
SUPPLIER : ABB		QUANTITY: TYPICAL AS PER (BUILDING) FIRE & GAS DETECTION LAYOUT

NOTICE  
THIS DRAWING HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PETROLEUM AND PROCESS INDUSTRIES (SAFETY) REGULATIONS, 1980. IT IS THE RESPONSIBILITY OF THE USER TO ENSURE THAT THE DRAWING IS USED IN ACCORDANCE WITH THE REQUIREMENTS OF THE REGULATIONS. THE USER SHALL BE RESPONSIBLE FOR THE CORRECT INTERPRETATION AND APPLICATION OF THE DRAWING. THE USER SHALL BE RESPONSIBLE FOR THE CORRECT INTERPRETATION AND APPLICATION OF THE DRAWING. THE USER SHALL BE RESPONSIBLE FOR THE CORRECT INTERPRETATION AND APPLICATION OF THE DRAWING.



FOR : EGPC  
AT : RAS SHUKEIR

EGPC CRUDE OIL TANK FARM  
RAS SHUKEIR AREA  
FIRE AND GAS DEVICES

TYPICAL INSTALLATION DETAILS



SCALE 1:1	DATE 14-MAY-2020	SHEET OF 01	0
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01251-100-010-ATD-001



## NOTES



FOR : EGPC  
AT : RAS SHUKAIR

EGPC CRUDE OIL TANK FARM  
RAS SHUKEIR AREA  
FIRE AND GAS DEVICES  
TYPICAL INSTALLATION DETAILS

# Enppi

ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

SCALE	EXPIRY DRAINING NUMBER	SHEET OF SHEET	REVISION
NONE			
REVISION DATE	01251-100-010-ATD-001	10/20	0
11-MAY-2000			

P.O. No. : 1251-100-196-10-33 MANUFACTURER: Simplex

P.O ITEM No.:	4.4
MODEL No.	:4098-9755 C/W DUCT KIT

SUPPLIER : ABB

DUCT SMOKE DETECTOR (BLDG)

QUANTITY: TYPICAL AS PER (BUILDING) FIRE & GAS DETECTION LAYOUT

# Simplex

## TrueAlarm Analog Sensing

UL, ULC, CSFM Listed; FM Approved;  
MEA (NYC) Acceptance \*

Addressable Duct Sensor Housings with TrueAlarm  
Photoelectric Sensor; Available with Multiple Relay Control

### Features

Compact air duct sensor housing with clear cover to monitor for the presence of smoke\*\*

Includes factory installed TrueAlarm photoelectric smoke sensor and features:

- Individual sensor information processed by the host control panel to determine sensor status
- Digital transmission of analog sensor values via IDNet or MAPNET II, 2-wire communications
- Programmable sensitivity, consistent accuracy, environmental compensation, status testing, and monitoring of sensor dirt accumulation

#### Model 4098-9755:

- Basic duct sensor housing (no relay output) powered by IDNet/MAPNET II communications

#### Model 4098-9756:

- Duct sensor housing with supervised output for multiple remote relays; requires separate 24 VDC; includes one relay
- Relay output is under panel control
- At the panel, relay output can be activated manually or in response to a separate alarm or other input

#### General features:

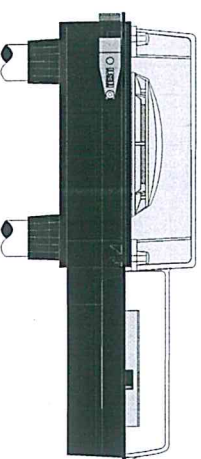
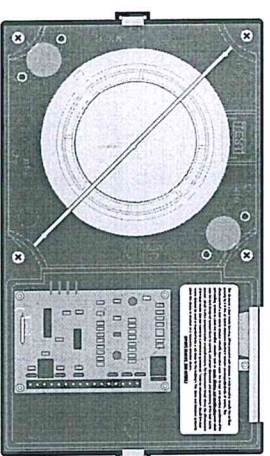
- UL listed to Standard 268A
- Clear cover allows visual inspection
- Test ports provide functional smoke testing access with cover in place
- Mounts to rectangular ducts or round ducts; minimum size is 8" (203 mm) square or 18" (457 mm) diameter
- Magnetic test feature for alarm initiation at housing
- Optional weatherproof enclosure is available separately (refer to data sheet S4098-0032)

#### Diagnostic LEDs (on interface board):

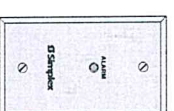
- Red Alarm/Trouble LED for sensor status and communications polling display
- Yellow LED for open or shorted trouble indication of supervised relay control (4098-9756 only)

#### Sampling tubes (ordered separately):

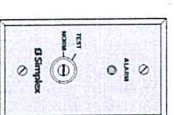
- Available in multiple lengths to match duct size



Duct Sensor Housing, Front and Bottom View



2098-9808



2098-9806

Remote Status/Alarm Indicator and Test Station

### Introduction

**Operation.** Simplex® compact air duct smoke sensor housings provide TrueAlarm operation for the detection of smoke in air conditioning or ventilating ducts. Sampling tubes are installed into the duct allowing air to be directed to the smoke sensor mounted in the housing.

#### TrueAlarm Sensor Operation

##### Digital Communication of Analog Sensing.

Analog information from the sensor is digitally communicated to the control panel where it is analyzed. Sensor input is stored and tracked as an average value with an alarm or abnormal condition being determined by comparing the sensor's present value against its average.

##### Intelligent Data Evaluation.

Monitoring each photoelectric sensor's average value provides a software filtering process that compensates for environmental

variation (duct dust, etc.) and compensates for environmental



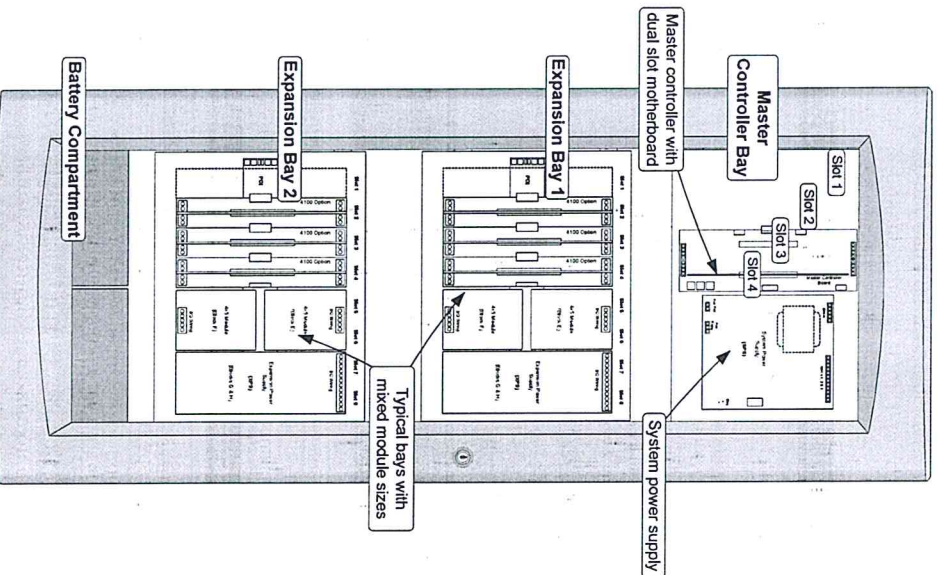
## Module Bay Description

The **Master Controller Bay** (top) includes a standard multi-featured system power supply, the master controller board, and operator interface equipment.

The **Expansion Bays** include a Power Distribution Interface (PDI) for new 4" x 5" flat design option modules and also accommodate 4100-style modules.

The **Battery Compartment** (bottom) accepts two batteries, up to 50 Ah, to be mounted within the cabinet without interfering with module space.

The following illustration identifies bay locations using a three bay cabinet for reference.



4100ES Module Bay Reference

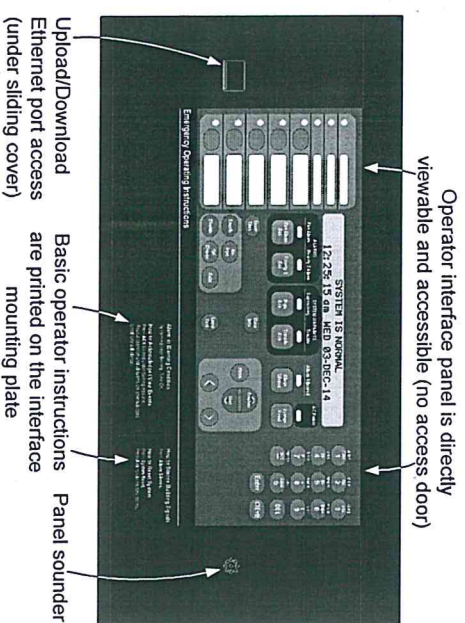
## Mechanical Description

### Mechanical Description (Continued)

- The latching dress panel (retainer) assembly easily lifts off for internal access
- NACs are mounted directly on power supply assemblies providing minimized wiring loss, compact size, and readily accessible terminations
- Packaging supports traditional 4100-style motherboard with daughter cards
- Modules are power-limited (except as noted, such as relay modules)
- The NEMA 1/IP30 box is ordered separately and available for early installation
- Doors are available with tempered glass inserts or solid; boxes and doors are available in platinum or red
- Boxes and door/retainer assemblies are ordered separately per system requirements; refer to data sheet S4100-0037 for details

### Operator Interface Detail Reference

The following illustration identifies the primary functions of the operator interface.



### Software Feature Summary

- TrueAlarm individual analog sensing with front panel information and selection access
- "Dirty" TrueAlarm sensor maintenance alerts, service and status reports including "almost dirty"
- TrueAlarm magnet test indication appears as distinct "test abnormal" message on display when in test mode
- TrueAlarm sensor peak value performance report
- "Install Mode" allows grouping of multiple troubles for uninstall modules and devices into a single trouble condition (typical with future phased expansion); with

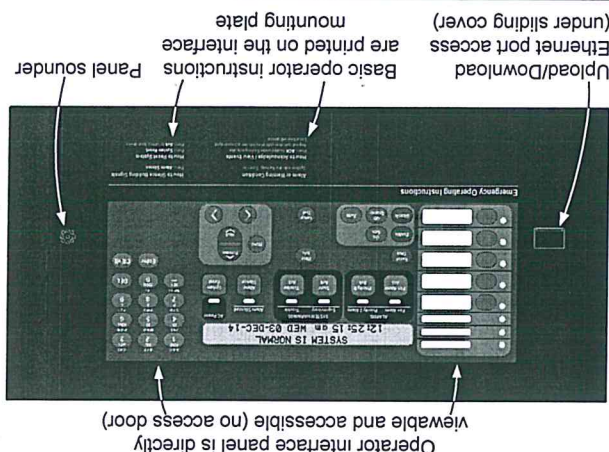


## Mechanical Description (Continued)

- The latching dress panel (retainer) assembly easily lifts off for internal access
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## Operator Interface Detail Reference

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## Software Feature Summary

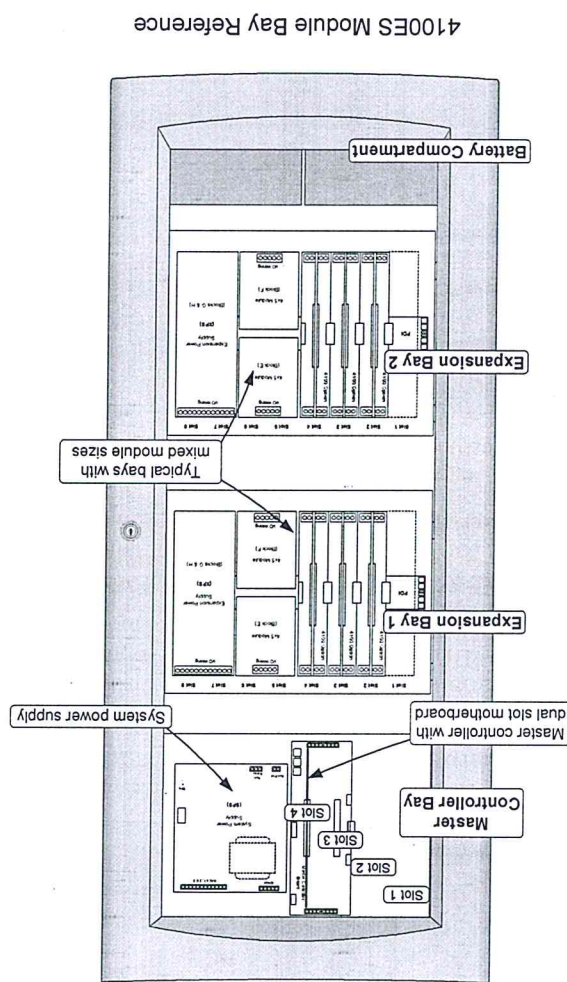
- TrueAlarm individual analog sensing with front panel information and selection access
- "Dirty" TrueAlarm sensor maintenance alerts, service and status reports including "almost dirty"
- TrueAlarm magnet test indication appears as distinct "test abnormal" message on display when in test mode
- TrueAlarm sensor peak value performance report
- "Install Mode" allows grouping of multiple troubles for uninstalled modules and devices into a single trouble condition (typical with future phased expansion); with future equipment and devices grouped into a single trouble, operators can more clearly identify events from the commissioned and occupied areas
- Module level ground fault searching assists installation and service by locating and isolating modules with grounded wiring
- "Recurring Trouble Filtering" allows the panel to recognize, process, and log recurring intermittent troubles (such as external wiring ground faults), but only sends a single outbound system trouble to avoid nuisance communications
- WALKTEST silent or audible system test performs an automatic self-resetting test cycle

S4100-0031-33 1/2016

2

## Module Bay Description

The Master Controller Bay (top) includes a standard multi-featured system power supply, the master controller board, and operator interface equipment. The Expansion Bays include a Power Distribution Interface (PDI) for new 4" x 5" flat design option modules and also accommodate 4100-style modules. The Battery Compartment (bottom) accepts two batteries, up to 50 Ah, to be mounted within the cabinet without interfering with module space. The following illustration identifies bay locations using a three bay cabinet for reference.

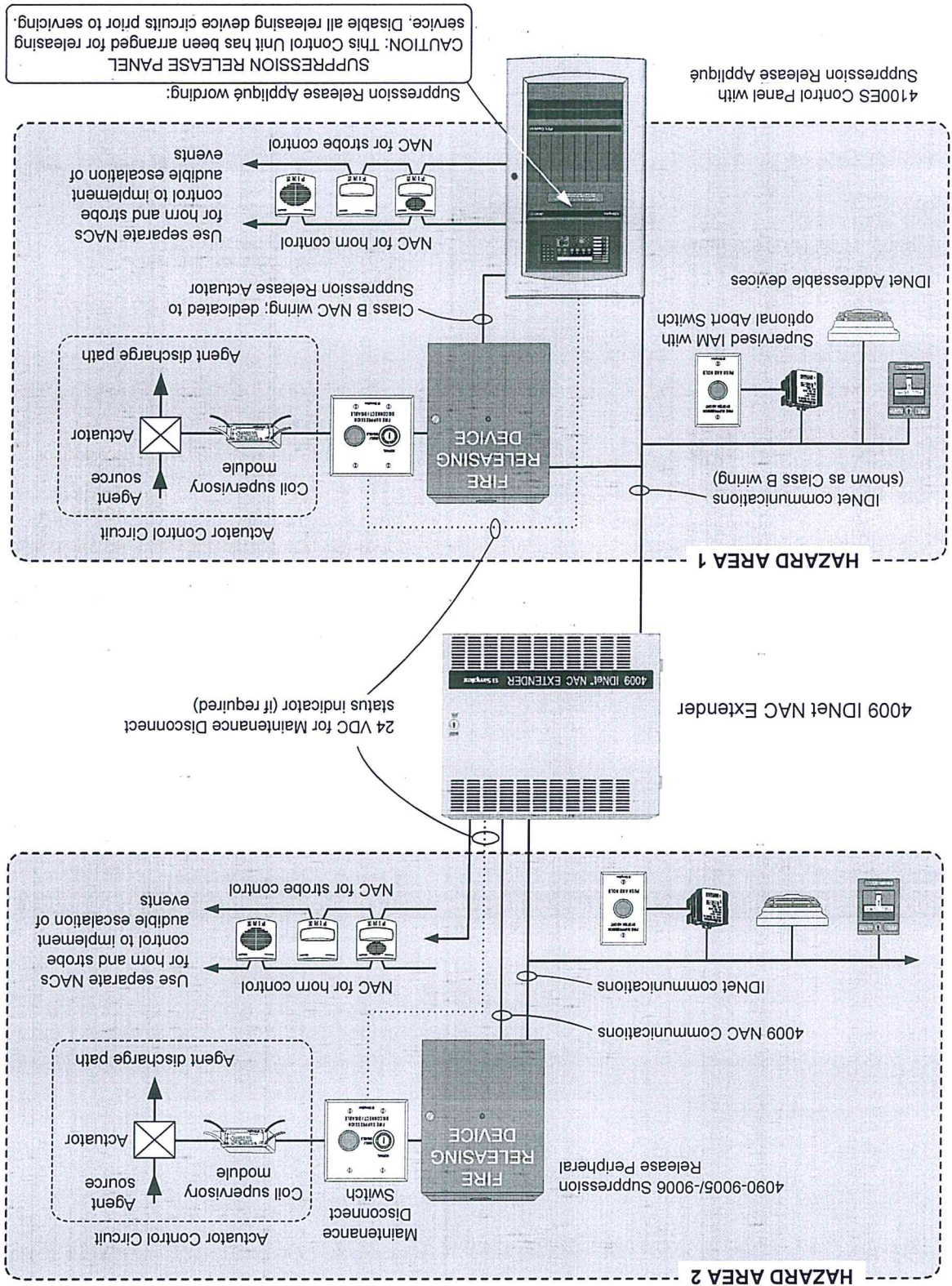


## Mechanical Description

- Boxes can be close-nipped; each box provides convenient stud markers for drywall thickness and nail-hole knockouts for quicker mounting
- Smooth box surfaces are provided for locally cutting conduit entrance holes exactly where required
- Cabinet assembly design has been seismic tested and is certified to IBC and CBC standards as well as to ASCE 7 categories A through F, requires 4100-7912 option for additional legacy card stabilizer brackets and battery brackets as detailed on data sheet S2081-0019

4100ES Module Bay Reference







## Strobe Specifications

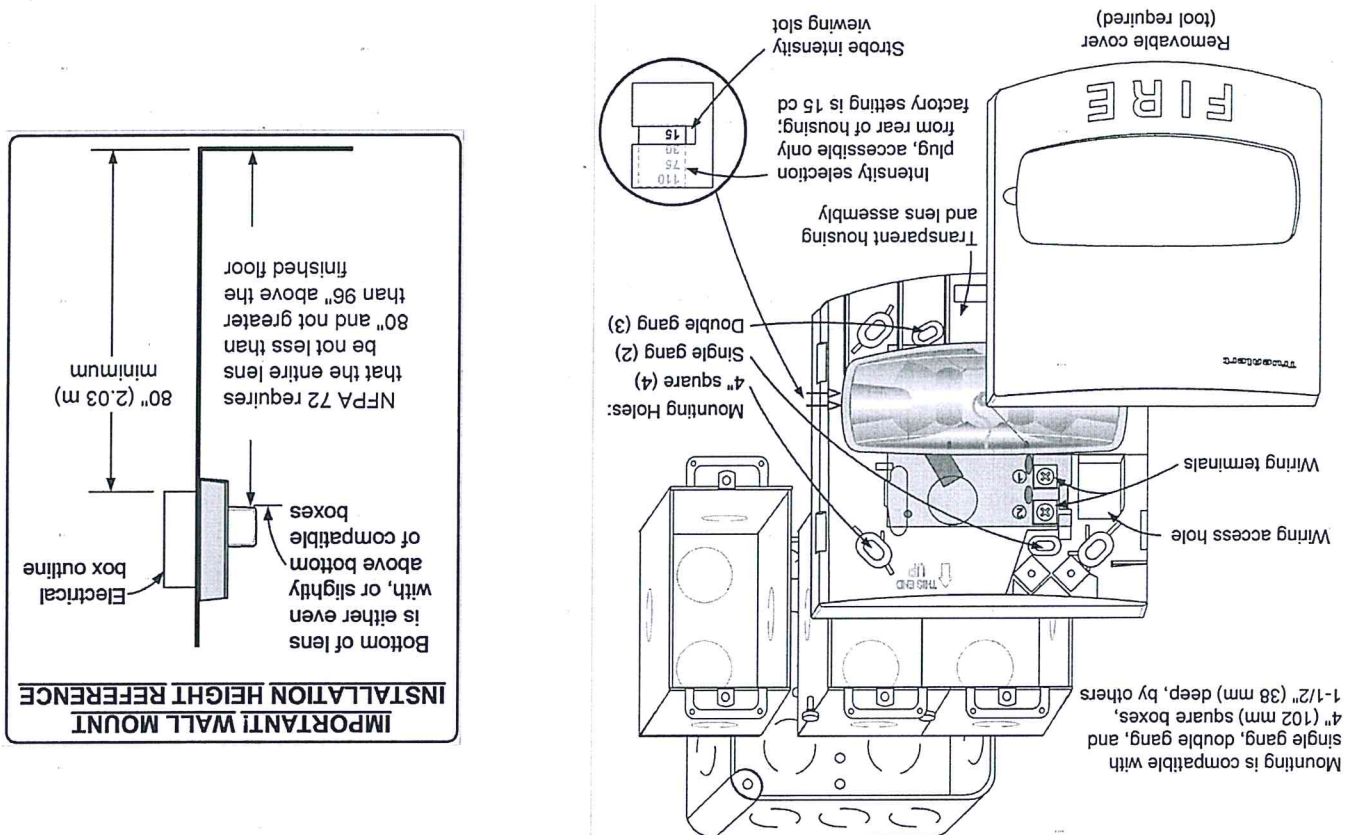
Table 6: Wall Mount or Ceiling Mount, Common Specifications

Specification		Rating		Connections		Wall Mount		Ceiling Mount	
Rated Voltage Range		Regulated 24 VDC; see Note 1 below		Flash Rate		Synchronized NAC Loading		Synchronized NAC Loading	
Temperature Range		32° to 122° F (0° to 50° C)		Humidity Range		Temperature Range		Humidity Range	
Up to 35 synchronized strobes maximum per NAC		10% to 93%, non-condensing at 100° F (38° C)		Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring		Housing Dimensions (with lens)		Housing Dimensions (with lens)	
Maximum RMS Current Rating per Strobe		15 cd		Maximum RMS Current Rating per Strobe		15 cd		Maximum RMS Current Rating per Strobe	
Setting (see Note 2 below)		60 mA		Setting (see Note 2 below)		60 mA		Setting (see Note 2 below)	
Reference RMS Currents at		18 VDC		Reference RMS Currents at		18 VDC		Reference RMS Currents at	
other voltages		24 VDC		other voltages		24 VDC		other voltages	
Housing Dimensions (with lens)		4-3/4" L x 2-5/16" W x 2-5/8" D (121 mm x 75 mm x 67 mm)		Housing Dimensions (with lens)		4-3/4" L x 2-5/16" W x 2-5/8" D (121 mm x 75 mm x 67 mm)		Housing Dimensions (with lens)	
Maximum RMS Current Rating per Strobe		15 cd		Maximum RMS Current Rating per Strobe		15 cd		Maximum RMS Current Rating per Strobe	
Setting (see Note 2 below)		75 mA		Setting (see Note 2 below)		75 mA		Setting (see Note 2 below)	
Reference RMS Currents at		24 VDC		Reference RMS Currents at		24 VDC		Reference RMS Currents at	
other voltages		50 mA		other voltages		50 mA		other voltages	
Flash Rate		1 Hz		Flash Rate		1 Hz		Flash Rate	
Synchronized NAC Loading		Up to 35 synchronized strobes maximum per NAC		Synchronized NAC Loading		Up to 35 synchronized strobes maximum per NAC		Synchronized NAC Loading	
Temperature Range		32° to 122° F (0° to 50° C)		Temperature Range		32° to 122° F (0° to 50° C)		Temperature Range	
Humidity Range		10% to 93%, non-condensing at 100° F (38° C)		Humidity Range		10% to 93%, non-condensing at 100° F (38° C)		Humidity Range	
Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring		Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring		Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring		Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring		Terminal blocks for 18 AWG to 12 AWG (0.82 mm <sup>2</sup> to 3.31 mm <sup>2</sup> ); two wires per terminal for in/out wiring	

Notes:

1. "Regulated 24 VDC" refers to the voltage range of 16 to 33 VDC per UL Standard 1971, *Signaling Devices for the Hearing Impaired*. This voltage range is the absolute operating range. Operation outside of this range may cause permanent damage to the strobe. Please note that 16 VDC is the lowest operating voltage that is allowed at the last appliance on the NAC under worst case conditions.
2. The maximum RMS current listed is the device nameplate rating. Strobe designs are constant wattage and the maximum RMS current rating occurs at the lowest allowable operating voltage. (RMS is root mean square and refers to the effective value of a varying current waveform).

### Installation Reference, Surface or Semi-Flush Wall Mounting



Wall Mount Installation Reference; Adapter Plate, Guard, and Adapter Skirt

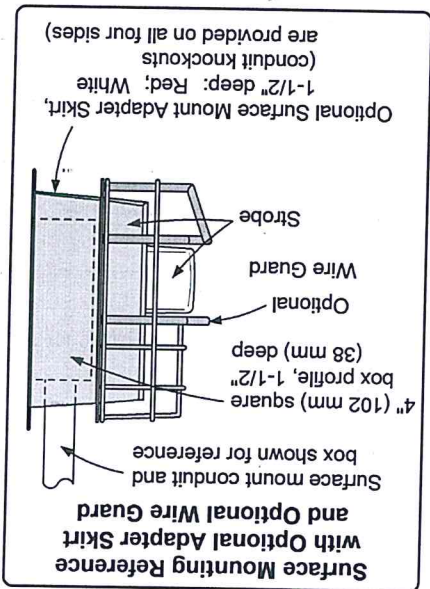
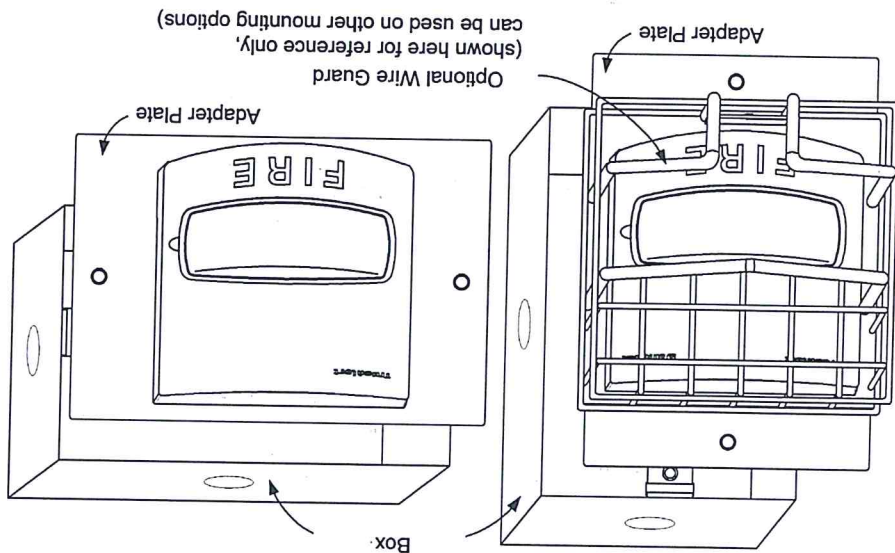


Figure 3: Wall Mount Installation Reference; Adapter Plate, Guard, and Adapter Skirt



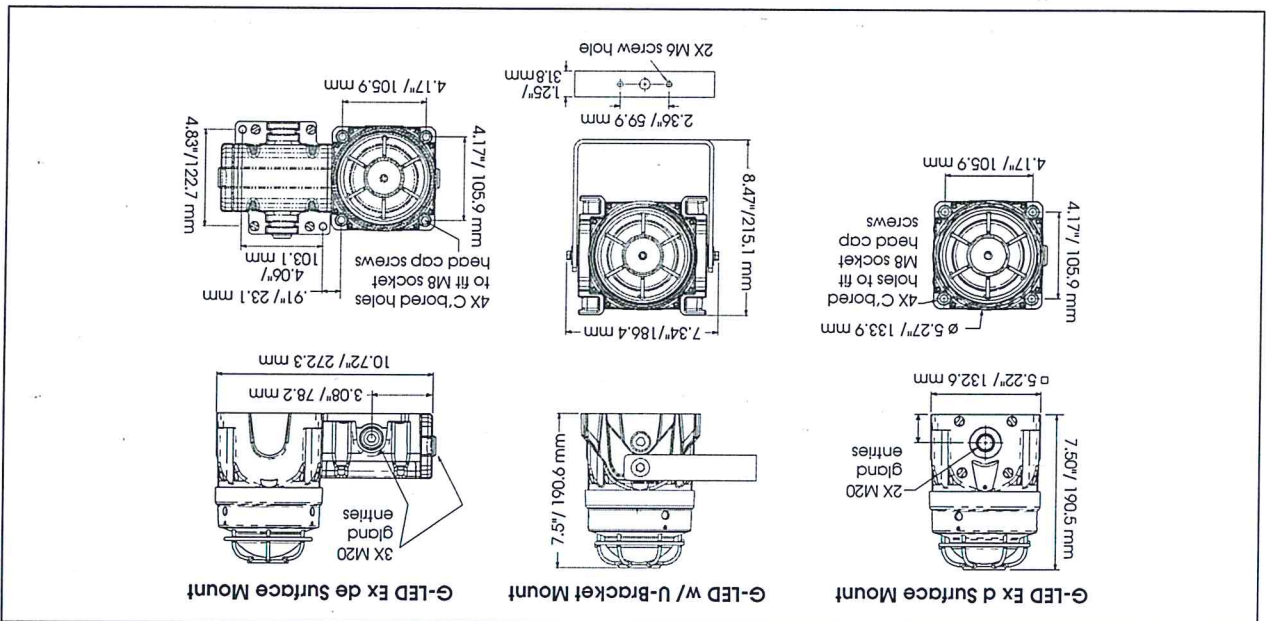
**Note:**

Figure 3 shows:

- 4905-9931 Adapter Plate
- 2975-9145 Box
- 4905-9961 Optional Wire Guard
- Optional Surface Mount Adapter Skirt:
- Red: 4905-9937
- White: 4905-9940



# Global Series Signaling Platform – LED (G-LED)

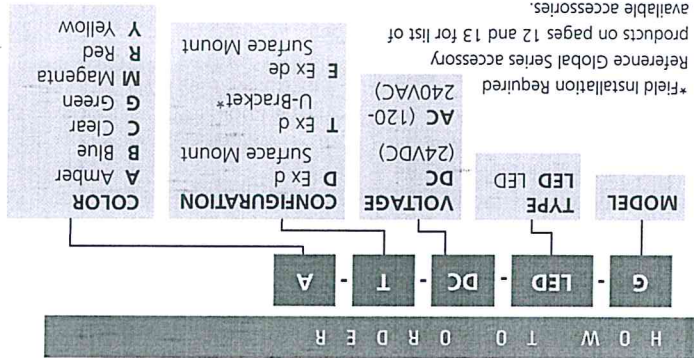


## SPECIFICATIONS

Lamp Life: 50,000 Hours  
 Light Source: LED  
 Nominal Operating Temperature Range: -67°F to 158°F  
 -55°C to 70°C  
 ATX/IECEX Certification Marking: 11 2GD Ex db e op is IIC Gb, Ex tb IIC Db IP66, T6 @ 58°C; 11 2GD Ex de IIC Gb, Ex tb IIC Db IP66, T6 @ 70°C  
 Guard and External Fasteners: 316 stainless steel  
 Terminals: Ex d: 6 way block (3 in, 3 out)  
 Ex de: 3 position quad pole terminal blocks  
 Cable Entries: Ex d: 2 entries - M20 x 1.5  
 Ex de: 3 entries - M20 x 1.5  
 UL and cUL Certification Marking: Class I, Division 2, Groups A, B, C, D  
 Class II, Division 2, Groups F, G  
 Class III  
 Net Product Weight: Ex d Surface Mount: 6.17 lbs  
 Ex d U-Bracket Mount: 8.15 lbs  
 Ex de Surface Mount: 8.99 lbs  
 2.80 kg  
 3.70 kg  
 4.08 kg

## REPLACEMENT PARTS

Part Number	Description
K859500821-02	Lens Guard
K859500815-01	Lens, Amber
K859500815-02	Lens, Blue
K859500815-03	Lens, Clear
K859500815-04	Lens, Green
K859500815-05	Lens, Red
K859500815-06	Lens, Magenta
K859500815-07	Lens, Yellow
K859500815-08	Lens, Amber
K859500815-09	Lens, Blue
K859500815-10	Lens, Clear
K859500815-11	Lens, Green
K859500815-12	Lens, Red
K859500815-13	Lens, Magenta
K859500815-14	Lens, Yellow
K859500815-15	Lens, Amber
K859500815-16	Lens, Blue
K859500815-17	Lens, Clear
K859500815-18	Lens, Green
K859500815-19	Lens, Red
K859500815-20	Lens, Magenta
K859500815-21	Lens, Yellow
K859500815-22	Lens, Amber
K859500815-23	Lens, Blue
K859500815-24	Lens, Clear
K859500815-25	Lens, Green
K859500815-26	Lens, Red
K859500815-27	Lens, Magenta
K859500815-28	Lens, Yellow
K859500815-29	Lens, Amber
K859500815-30	Lens, Blue
K859500815-31	Lens, Clear
K859500815-32	Lens, Green
K859500815-33	Lens, Red
K859500815-34	Lens, Magenta
K859500815-35	Lens, Yellow
K859500815-36	Lens, Amber
K859500815-37	Lens, Blue
K859500815-38	Lens, Clear
K859500815-39	Lens, Green
K859500815-40	Lens, Red
K859500815-41	Lens, Magenta
K859500815-42	Lens, Yellow
K859500815-43	Lens, Amber
K859500815-44	Lens, Blue
K859500815-45	Lens, Clear
K859500815-46	Lens, Green
K859500815-47	Lens, Red
K859500815-48	Lens, Magenta
K859500815-49	Lens, Yellow
K859500815-50	Lens, Amber
K859500815-51	Lens, Blue
K859500815-52	Lens, Clear
K859500815-53	Lens, Green
K859500815-54	Lens, Red
K859500815-55	Lens, Magenta
K859500815-56	Lens, Yellow
K859500815-57	Lens, Amber
K859500815-58	Lens, Blue
K859500815-59	Lens, Clear
K859500815-60	Lens, Green
K859500815-61	Lens, Red
K859500815-62	Lens, Magenta
K859500815-63	Lens, Yellow
K859500815-64	Lens, Amber
K859500815-65	Lens, Blue
K859500815-66	Lens, Clear
K859500815-67	Lens, Green
K859500815-68	Lens, Red
K859500815-69	Lens, Magenta
K859500815-70	Lens, Yellow
K859500815-71	Lens, Amber
K859500815-72	Lens, Blue
K859500815-73	Lens, Clear
K859500815-74	Lens, Green
K859500815-75	Lens, Red
K859500815-76	Lens, Magenta
K859500815-77	Lens, Yellow
K859500815-78	Lens, Amber
K859500815-79	Lens, Blue
K859500815-80	Lens, Clear
K859500815-81	Lens, Green
K859500815-82	Lens, Red
K859500815-83	Lens, Magenta
K859500815-84	Lens, Yellow
K859500815-85	Lens, Amber
K859500815-86	Lens, Blue
K859500815-87	Lens, Clear
K859500815-88	Lens, Green
K859500815-89	Lens, Red
K859500815-90	Lens, Magenta
K859500815-91	Lens, Yellow
K859500815-92	Lens, Amber
K859500815-93	Lens, Blue
K859500815-94	Lens, Clear
K859500815-95	Lens, Green
K859500815-96	Lens, Red
K859500815-97	Lens, Magenta
K859500815-98	Lens, Yellow
K859500815-99	Lens, Amber
K859500815-100	Lens, Blue







UL/CUL HAZARDOUS LOCATION RATING		ATEX/IECEx HAZARDOUS LOCATION RATING	
TEMPERATURE CODE AT 70°C		TEMPERATURE CODE AT 70°C/58°B	
Class III	T6	T5/T6	T3
Class II, Division 2, Groups F, G	T6	UL/CUL HAZARDOUS LOCATION CLASS/ZONE	TEMPERATURE CODE AT 70°C
Class I, Division 2, Groups A, B, C, D	T4		
G-LED		MODEL	
120-240VAC 50/60Hz	24VDC	OPERATING VOLTAGE	OPERATING CURRENT
			LIGHT OUTPUT
		0.300 amps	175 cd
		0.12-0.70 amps	175 cd

1 Recommended labels: BRADY #B-855 Toughwash labels or ULIN#5-16643 weather resistant  
2 Consult our Technical Support team for details

- Available in 24VDC and 120-240VAC 50/60Hz
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (Field installation required)
- GRP (Glass Reinforced Polyester) Non-metallic corrosion-resistant design
- Dome guard included
- 24VDC models contain a supervisory diode and four wire terminal block
- M20 entries standard (M25 option available).
- Type 4X, IP66, IP69K enclosure
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; and Class III and cUL Listed for Class 1, Zone 1 AEx db IIC and Zone 21, AEx op is tb IIC T200°C, excludes increase safety versions (Ex de)
- LED has 8 on-board flash patterns, factory default is Flashing at 60 FPM
- "Auto-sync" available for AC flashing pattern products?
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available<sup>1</sup>

## FEATURES

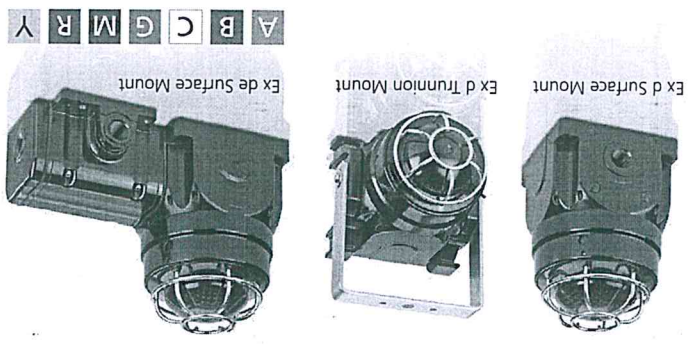
The Federal Signal patented Global Series™ LED Beacons feature a long-life LED light source with the ability to set one of eight (8) flash patterns (user-configurable). The device is rated to the latest protection concept, "Ex op is" (inherently safe offshore marine and land-based industrial applications).

The G Series LED Beacons flameproof "Ex d" versions come standard with two (2) M20 entries. The increased safety "Ex de" versions include a separate terminal chamber for quick field termination or pass-through wiring, and includes three (3) M20 entries in a standard configuration.

The Global Series LED Beacons can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available. For use in alarm control panel applications.

# Global Series™ Signaling Platform – LED

Model G-LED





### FEATURES

- Repeatable - self-restoring, nothing to replace, testable
- Versatile - various temperature settings available
- Durable - long lasting stainless steel shell
- Economical - wide spacings reduce installation costs
- Factory set
- Internal contact area hermetically sealed in stainless steel shell
- ROHS Compliant

### APPLICATIONS

- Protection of schools, factories, offices, libraries, etc.
- Power generation
- Gas station islands
- Paint spray booths
- Range hoods
- Engine compartments

### DESCRIPTION

DETECT-A-FIRE® detectors are the "heart" of many fire protection systems. These highly reliable devices have been the standard for over 65 years. Thousands of these detectors are in use controlling the release of extinguishants such as clean agents, CO<sub>2</sub>, water, or dry chemicals. In some systems the device is used as an ALARM device, to sense overheat or fire and alert personnel. DETECT-A-FIRE detectors have met with wide acceptance because they are designed with RATE COMPENSATION. This provides a unique advantage over both fixed temperature and rate-of-rise types of detectors because only the DETECT-A-FIRE detector accurately senses the surrounding air temperature regardless of the fire growth rate. At precisely the pre-determined danger point, the system is activated.

Fixed temperature detectors must be completely heated to alarm temperature and therefore a lag in response time may occur with a fast rate fire. Rate-of-rise devices, on the other hand, are triggered by the rate of increase in ambient temperature and are subject to false alarms caused by harmless, transient thermal gradients such as the rush of warm air from process ovens.

The key to the unit's sensitivity is in the design (Figure 1). The outer shell is made of a rapidly expanding alloy which closely follows changes in surrounding air temperature. The inner struts are made of a slower expanding alloy. Designed to resist thermal energy absorption and sealed inside the shell, the struts follow temperature changes more slowly.

A slow rate fire (Figure 2) will heat the shell and struts together. At the "set point", the unit will trigger, actuating the alarm or releasing the extinguishant.

A transient rush of warm air up to 40°F/min. may expand the shell, but not enough to trigger the unit. By ignoring transient warm air excursions, the DETECT-A-FIRE detector virtually eliminates false alarms prevalent with rate-of-rise devices. If a fast rate fire (Figure 3) starts, the shell will expand rapidly. The struts will close, actuating the alarm and/or releasing the agent. The faster the fire rate of growth, the sooner the DETECT-A-FIRE detector will react.

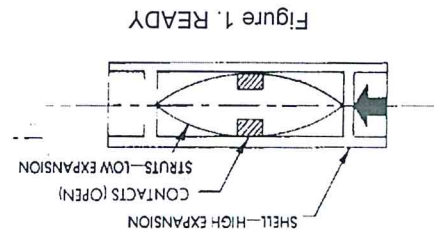


Figure 1. READY

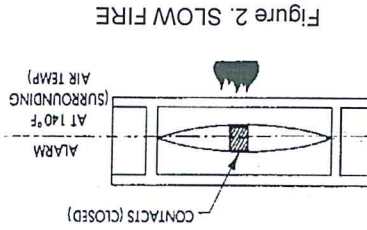


Figure 2. SLOW FIRE

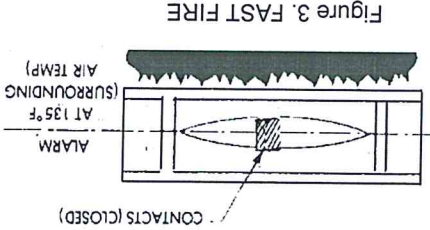
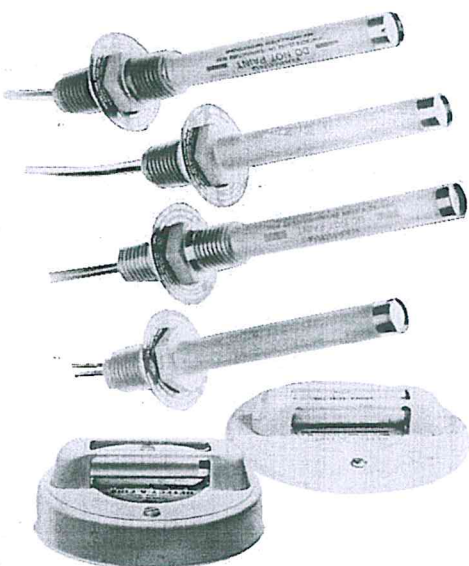


Figure 3. FAST FIRE



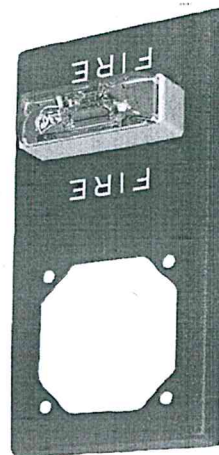
# RSSP-24MCW-FR 24 VDC Multi-candela Retrofit Strobe (red)

[www.boschsecurity.com](http://www.boschsecurity.com)



**BOSCH**

Invented for life



The RSSP Multi-Candela Strobe Plates are a cost effective way to retrofit required wall strobe appliances to bells, horns, chimes, multitoners or speakers. They easily mount to standard 4-inch backboxes, and, for surface mount, can be used with the Wheelock SBL2 surface backbox. These retrofit strobe plates have low current draw while maintaining outstanding performance, reliability and cost effectiveness. These versatile appliances will satisfy virtually all requirements for indoor, wall or ceiling mount applications.

## Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

Region	Certification
USA	UL ULKC_S5391 - Signaling Appliances and Equipment for the Hearing Impaired
	FM RSSP
	CSFM 7125-0785-0141

## Installation/configuration notes

**Compatible Control Panels**  
For synchronization, these retrofit strobe appliances are compatible with the D7024 and FPD-7024 fire alarm control panels (FACPs). When used with the DSM Synchronization Module, they are compatible with all Bosch FACPs.

**Compatible Notification Appliances**  
These retrofit strobes are compatible with the following NAC devices:

Category	Product Series
Chimes	CH70
Horns	AH, HS, and NH
Motor Bells	MB
Multitone Appliances	AMT and MT
Speakers	E70, ET70, ET-1010, and ET-1080

**Mounting Considerations**  
Mount these retrofit strobes on the indicated back boxes for the indicated applications:

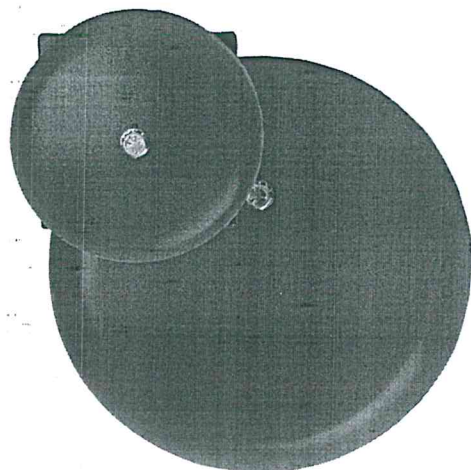


# MB Motor Bells

[www.boschsecurity.com](http://www.boschsecurity.com)



**BOSCH**  
Invented for life



- ▶ High sound output for improved alerting capabilities
- ▶ High efficiency, low current motor
- ▶ Low starting voltage
- ▶ Fully-enclosed mechanism
- ▶ Durable keyed steel gong and striker

These Wheelock motor bells use a high-quality, micro-motor operating mechanism. This provides long-term reliability, low starting voltage, and extremely low current consumption. These features enable the use of more bells per circuit and greater alarm signal distribution than conventional bells. The low starting voltage provides a stronger signal on marginal circuits. These motor bells eliminate the coils and contacts found in conventional vibratory bells. They contain a highly-efficient DC motor drive system to produce high sound pressure levels at lower current requirements. As a result, they reduce EMI generation problems. The operating mechanism is enclosed in a die-cast aluminum housing, making the bells suitable for both interior and exterior applications. The steel gong and striker last longer and produce a louder sound output.

## Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

Region	Certification	UL	FM	MB Family
USA	ULSZ: Audible Signal Appliances (UL464)			

**Compatible Products**  
The following products are compatible with the MB Motor Bells:

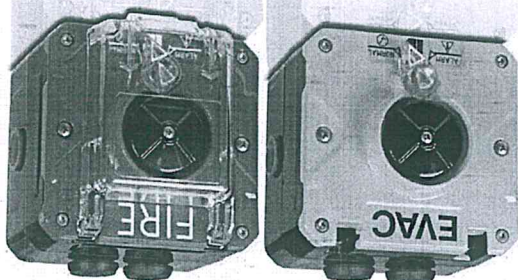
Region	Certification	see our website	CSFM	ULC	ULSZC: Audible Signal Appliances and Accessories, Fire Alarm	HKFS	J-005/C/035 & J-005/C/038
Canada							
Hong Kong							

Compatible with all Bosch G Series, 6000 Series, 2000 Series, DS7400Xi and DS7400XiV4, DS7080IP-32, DS7200 Series, and DS7060 Series Control Panels!

Category	Product ID	Product Description
Control Panels	D7022	Conventional FACP
	D7024	Addressable FACP
	D7024	Conventional FACP
	D8024	Analog FACP
	D9124	Addressable FACP



# Flameproof & Hazardous Location Push Button Call Point



this data sheet shall indicate the UL listing or FM approval as agreed in the clarification phase, otherwise this model will not be accepted and shall be replaced with another model UL/FM

Model CP-PB

Federal Signal's multi-purpose Push Button Call Points are compatible with a wide range of flameproof and hazardous location applications. These models feature a UV stable, heat, impact and corrosion resistant, anti-static GFR (Glass Reinforced Polyester) housing. Call Points are ideal for both onshore and offshore applications for activating emergency equipment, audible and visual signals, or control panel notification.

Our Call Point models offer an optional dual color unique LED indicator. The dual color LED indicator displays Green when the unit is in "Normal" or standby mode, and changes to Red when the unit is in "Alarm" mode. An optional clear polycarbonate lift flap converts any single step device into a two-step device to prevent accidental activation. Lift flaps are also available with four label options with instructions on how to activate the device. Additionally, the integrated tool reset key can be removed to provide a secure tamper resistant option. A variety of modular end of line resistors, series resistors and supervisory diodes are available for up to two modules per model. Modules are easily replaceable and are field installed.

Each Call Point unit comes standard with eight field-installable faceplate labels: FIRE, EVAC, BIOHAZARD, GAS, EMERGENCY, SHUTDOWN, LOCKDOWN, and evacuation logo. For harsher environments, four optional stainless steel faceplate labels are also available: FIRE, EVAC, BIOHAZARD and GAS ALARM. If the application requires a custom faceplate label, the faceplate's labelling surface will accept end-user supplied U-Line #5-19297 weather-resistant labels for laser printers.

## FEATURES

- High visibility, anti-static GFR enclosure faceplate available in Red, Yellow, Blue, Green and Black
- Optional lift flap for two-step operation to prevent accidental activation
- 3 x M20 or 1/2" NPT entries: 2 top and 1 side entry with 180 degrees rotatable mounting orientation
- Integrated tool reset with removable key for tamper resistant reset
- Assembled with external 316 stainless steel hardware
- Single and dual switch activation available
- Press down cage clamp or screw down terminal block options
- Optional dual color indicator LED
- Optional field installed stainless steel faceplate labels and duty labels
- Optional modular EOL resistors, series resistors and supervisory diode
- IP66 enclosure
- CE compliant
- IECEx/ATEX rated, Zone 1, 21, Gas Group IIC



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 12.03- Motor Datasheets



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.04- Electrical Cables Schedule



# PRODUCT INFORMATION

## 4090-9002 IDNet, INDIVIDUAL ADDRESSABLE MODULE RELAY (IAM)

### WITH EDWARD 439DEX-6AW-R

#### FEATURES:

- UL LISTED
- A SINGLE ADDRESSABLE POINT RELAY CONTROLS A 2A FORM C CONTACT AND TRACKS ITS STATUS
- FIRE ALARM CONTROL PANEL
- IDNet RELAY DESIGN ALLOWS DATA AND POWER TO BE TRANSMITTED AND RECEIVED OVER COMMUNICATIONS
- COMPACT, SEALED CONSTRUCTION
- SCREEN TERMINALS FOR WIRING CONNECTIONS
- REDUCES DUST INTRUSION

#### SPECIFICATIONS:

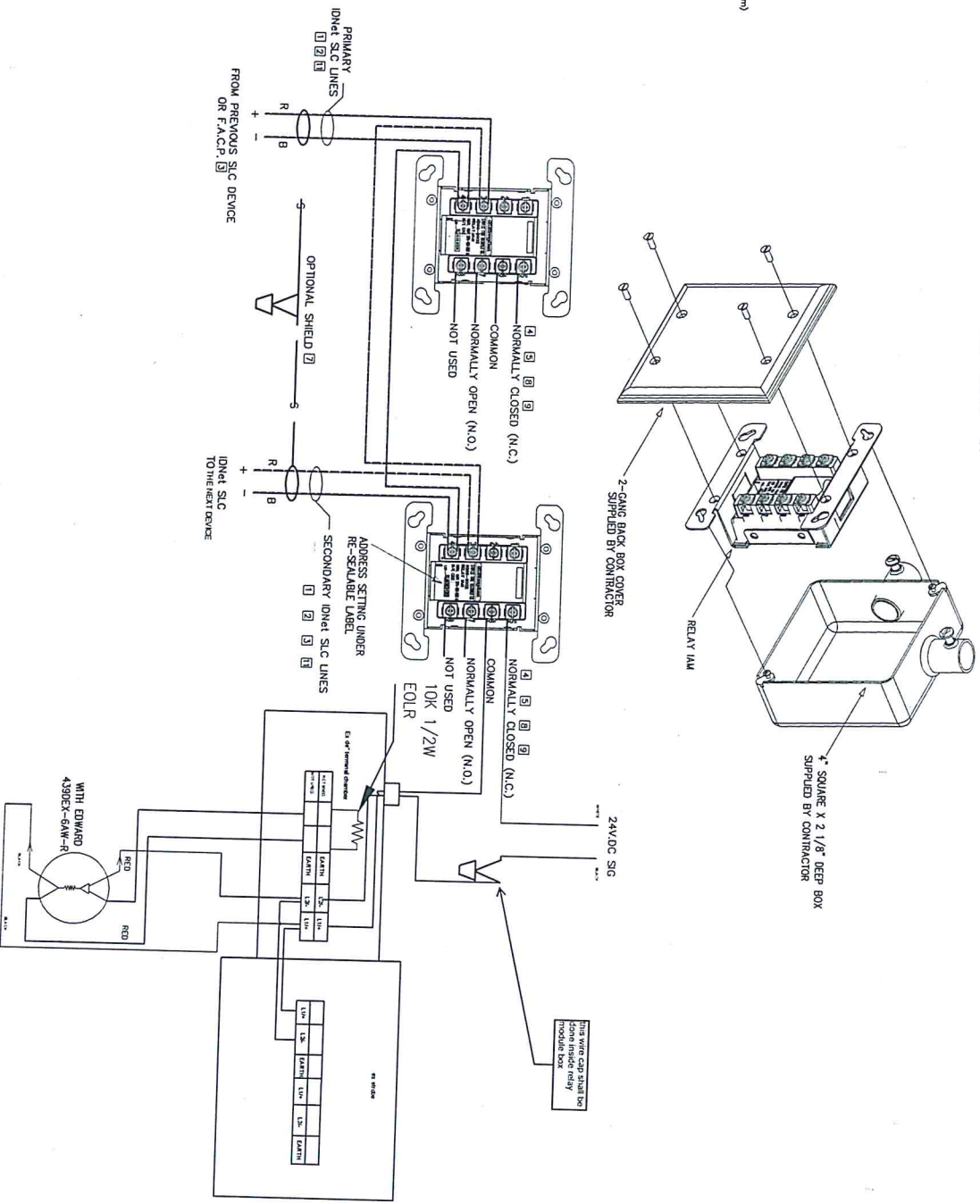
- RELAY FM POWER: SUPPLIED BY IDNet COMMUNICATIONS
- POWER LIMITED RATING: 2A @ 24VDC, TRANSIENT SUPPRESSED
- LOADS: 1A @ 24VDC FOR INDUCTIVE LOADS
- NON-INDUCTIVE RATING: 1/2A @ 24VDC, TRANSIENT SUPPRESSED
- WIRE CONNECTIONS: SCREEN TERMINALS FOR M/OUT
- WIRING: #18 TO #14 AWG WIRE
- COMPATIBLE WITH SIMPLEX 2081-9044 OVER VOLTAGE PROTECTIONS
- HOUSING MATERIAL: 1/8" x 1/8" x 1/8" (105mm x 105mm x 3mm)
- HOUSING PLATE MATERIAL: SHEET METAL GALVANIZED
- TEMPERATURE RANGE: 32° F TO 120° F (0° C TO 49° C)
- HUMIDITY RANGE: UP TO 95% RH AT 100° F (38° C)

#### DESCRIPTION:

IDNet RELAY ALMS ALLOW THE SURVEY FIRE ALARM CONTROL PANEL TO CONTROL A REMOTE ADDRESSABLE RELAY FOR CONTROL USING IDNet ADDRESSABLE COMMUNICATIONS. FOR SIMPLIFIED INSTALLATION, TYPICAL APPLICATIONS WOULD BE FOR SWITCHING LOCK, ELEVATOR CAPTURE, OR CONTROL OF FUNCTIONS SUCH AS ELEVATOR CAPTURE, OR CONTROL OF RELAY STATUS IS ALSO COMMUNICATED REGARDING ONLY ONE DEVICE ADDRESS.

#### WIRING NOTES:

1. IDNet LINES ARE TO BE #18 AWG TWISTED PAIR (CONSULT SITE SALES ENGINEERING FOR EXCEPTIONS)
2. MAXIMUM ALLOWABLE LINE RUN: FEET FROM THE F.A.C.P. TO THE FARTHEST DEVICE IN THE SYSTEM
3. MAXIMUM QUANTITY OF DEVICES PER CIRCUIT: CONTROL PANEL
4. MODULE DEPENDENT TO RELAY CONNECTIONS IS UNAPPLICABLE
5. USE #14 AWG WIRE TO LOCATIONS
6. RELAY CONTACTS RATED 2A, 24VDC (1A FOR INDUCTIVE LOAD) FOR POWER-LIMITED RATING 2A, 24VDC (1A FOR INDUCTIVE LOAD) FROM FACP OR POWER-LIMITED POWER SUPPLY LEAD FOR FIRE
7. SEPARATE WIRING FOR ADDRESSING 574-184
8. IDNet SHIELD IS PRESENT, IT SHOULD BE CONNECTED TO THE OUTGOING OF THE SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH
9. MUST MAINTAIN A MINIMUM 1/4" INCH SEPARATION FROM IDNet WIRING
10. WHEN BOTH POWER-LIMITED AND NON-POWER-LIMITED CONTACTS ARE USED, THE FACP, FPL, OR PFP POWER LIMITED
11. MAXIMUM TOTAL WIRE (INCLUDING ALL T-TAPS) ON CIRCUIT FROM THE F.A.C.P. NOT TO EXCEED 10000 FEET OR 250F (CLASS B ONLY)
12. REFER TO FIELD WIRING DIAGRAM 842-073



# PRODUCT INFORMATION

## SPECIFICATIONS:

- UL LISTED STANDARD 864
- DEVICE QTY: 200 INDET DEVICES ON A SINGLE PAIR OF WIRES  
THE 4090-9007 SIGNAL IAM CIRCUMVENTS 2 UNIT LOADS FOR NAC SUPERVISION.  
(EACH SIGNAL IAM USED, REDUCES THE INDET LOOP CAPACITY BY TWO ADDRESSES)
- OPERATING TEMPERATURE RANGE: 32° F TO 120° F  
(0° C TO 49° C)
- HUMIDITY RANGE: UP TO 93% RELATIVE HUMIDITY @ 100° F (38° C)
- OUTPUT CAPACITY: UP TO 12.5W OF 25 WMS SPEAKERS  
UP TO 35W OF 70 WMS SPEAKERS
- SCREW TERMINALS FOR IN/OUT WIRING, 18 TO 12 AWG WIRE

## DESCRIPTION:

SIGNAL IAMS PROVIDE ADDITIONAL NAC CONTROL, TO ALLOW NOTIFICATION TO BE DIRECTED WHERE DESIRED. THE SIGNAL IAM MUST BE PROGRAMMED INTO THE SYSTEM, IT DOES NOT AUTOMATICALLY FOLLOW ITS CONTROL PANEL NAC INPUT.

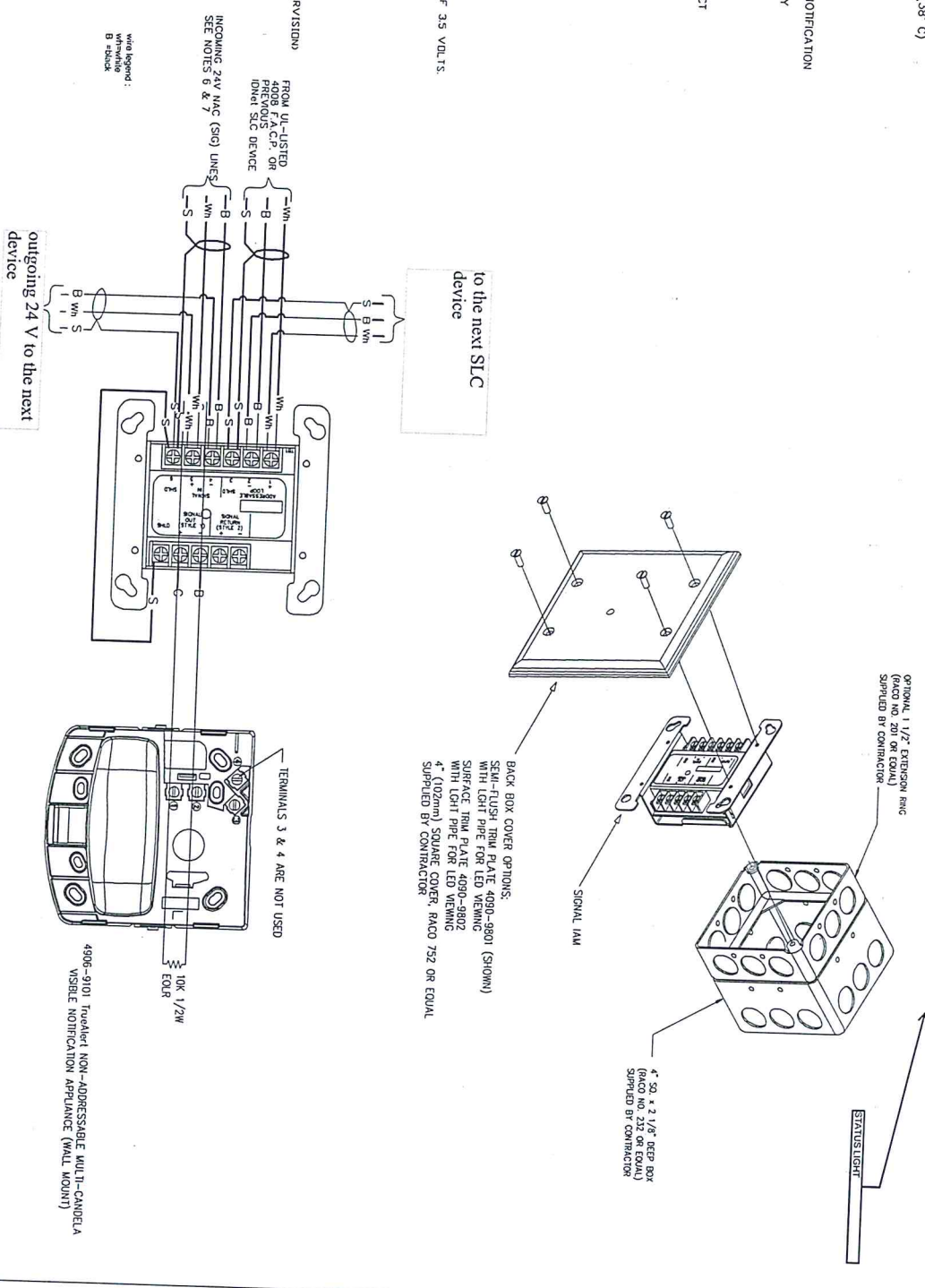
## WIRING NOTES:

1. 4008 INDET LINES ARE TO BE #18 AWG TWISTED SHIELDED PAIR. CONSULT YOUR LOCAL SIMPLEX/KNIGHT DISTRICT FOR EXCEPTIONS.
2. MAXIMUM ALLOWANCE LINE RUN, FROM 4008 TO FARTHEST DEVICE, NOT TO EXCEED 2,500 FEET.
3. FOR MAXIMUM VOLTAGE DROP, ETC., REFER TO SIMPLEX 4008 FIELD WIRING GUIDE.
4. MAX QTY. OF DEVICES PER CIRCUIT: 200 FOR 4008 SYSTEM OR TO LOCAL CODE.
5. MAXIMUM NO. 12 AWG WIRE FOR 28 VDC WIRING, OR TO LOCAL CODE.
6. ALL CONNECTIONS MUST TEST FREE OF GROUNDS.
7. SEE INSTALLATIONS INSTRUCTIONS 579-670AC.
8. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE REQUIRED.
9. MAXIMUM POWER OF NAC LOOP = 0.5 AMPS AT 24 VDC.
10. NAC CIRCUIT WIRING DISTANCES WITH MAXIMUM VOLTAGE DROP OF 3.5 VOLTS, WHEN COMPUTED DISTANCES ON THE SIGNAL IAM OUTPUT, REMEMBER TO ACCOUNT FOR THE WIRING DISTANCE (LDS) FROM THE CONTROL PANEL TO THE SIGNAL IAM.

DESIRED POWER	ACTUAL POWER	MAX. DISTANCE IN FEET (TWISTED PAIR WIRE)
12.5 V	6.25 V	1200
10 V	5 V	1600
7.5 V	3.75 V	2000
5 V	2.5 V	2400
2.5 V	1.25 V	2800
1.25 V	0.625 V	3200
0.625 V	0.3125 V	3600
0.3125 V	0.15625 V	4000
0.15625 V	0.078125 V	4400
0.078125 V	0.0390625 V	4800
0.0390625 V	0.01953125 V	5200
0.01953125 V	0.009765625 V	5600
0.009765625 V	0.0048828125 V	6000
0.0048828125 V	0.00244140625 V	6400
0.00244140625 V	0.001220703125 V	6800
0.001220703125 V	0.0006103515625 V	7200
0.0006103515625 V	0.00030517578125 V	7600
0.00030517578125 V	0.000152587890625 V	8000
0.000152587890625 V	0.0000762939453125 V	8400
0.0000762939453125 V	0.00003814697265625 V	8800
0.00003814697265625 V	0.000019073486328125 V	9200
0.000019073486328125 V	0.0000095367431640625 V	9600
0.0000095367431640625 V	0.00000476837158203125 V	10000

11. ALL CONNECTIONS MUST TEST FREE OF GROUNDS.
12. SEE INSTALLATIONS INSTRUCTIONS 579-670.
13. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE REQUIRED.

# 4090-9007 ADDRESSABLE SIGNAL MODULE (IAM) W/ 24VDC NOTIFICATION APPLIANCES WITH 4906-9101 TrueAlert NON-ADDRESSABLE MULTI-CANDELA VISIBLE NOTIFICATION APPLIANCE (WALL MOUNT)



# PRODUCT INFORMATION

## 4090-9007 ADDRESSABLE SIGNAL MODULE (IAM) W/ 24VDC NOTIFICATION APPLIANCES

### WHEELLOCK MULTI-CANDELA STROBE RSSP-24MCW-FR

#### SPECIFICATIONS:

- UL LISTED STANDARD 864
- DEVICE QTY: 200 IAM DEVICES ON A SINGLE PAIR OF WIRES (EACH SIGNAL IAM USED, REDUCES THE LINE LOOP CAPACITY BY TWO ADDRESSES)
- OPERATING TEMPERATURE RANGE: 32° F TO 120° F (0° C TO 49° C)
- HUMIDITY RANGE: UP TO 93% RELATIVE HUMIDITY @ 100° F (38° C)
- OUTPUT CAPACITY: UP TO 12.5W OF 25 VRMS SPEAKERS UP TO 35W OF 70 VRMS SPEAKERS
- SCREW TERMINALS FOR IN/OUT WIRING, 18 TO 12 AWG WIRE

#### DESCRIPTION:

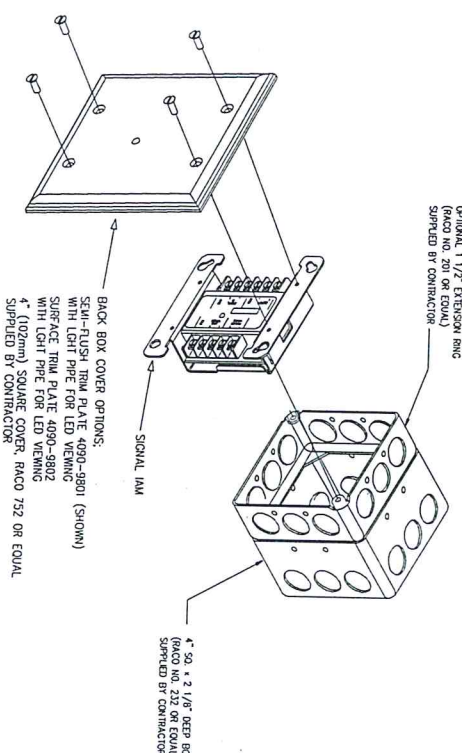
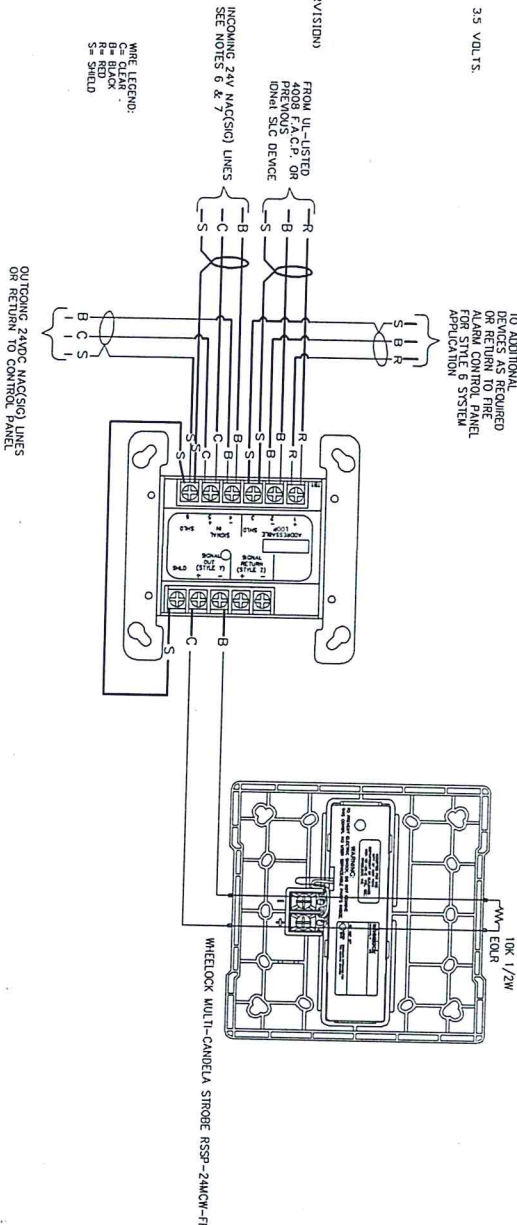
SIGNAL IAMs PROVIDE ADDITIONAL MAC CONTROL TO ALLOW NOTIFICATION TO BE DIRECTED WHERE DESIRED. THE SIGNAL IAM MUST BE PROGRAMMED INTO THE SYSTEM, IT DOES NOT AUTOMATICALLY FOLLOW ITS CONTROL PANEL MAC INPUT.

#### WIRING NOTES:

1. 4098 LINE LINES ARE TO BE #18 AWG TWISTED SHIELDED PAIR (CONSULT YOUR LOCAL SIMPLEX/GRINELL DISTRICT FOR EXCEPTIONS).
2. MAXIMUM ALLOWANCE LINE RUN FROM 4098 TO FARTHEST DEVICE, NOT TO EXCEED 6250 FEET.
3. FOR MAXIMUM VOLTAGE DROP ETC. REFER TO SIMPLEX 4098 FIELD WIRING GUIDE.
4. MAX QTY. OF DEVICES PER CIRCUIT: 200 FOR 4098 SYSTEM.
5. MAXIMUM NO. 12 AWG WIRE FOR 28 VDC WIRING, OR TO LOCAL CODE.
6. ALL CONNECTIONS MUST TEST FREE OF GROUNDS.
7. SEE INSTALLATIONS INSTRUCTIONS 579-670AC.
8. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE REQUIRED.
9. MAXIMUM POWER OF MAC LOOP = 0.5 AMPS AT 24 VDC.
10. MAC CIRCUIT WIRING DISTANCES WITH MAXIMUM VOLTAGE DROP OF 3.5 VOLTS. WHEN COMPUTING DISTANCES ON THE SIGNAL IAM OUTPUT, REMEMBER TO ACCOUNT FOR THE WIRING DISTANCE (LOSS) FROM THE CONTROL PANEL TO THE SIGNAL IAM.

DESIRED POWER	ACTUAL POWER	MAX. DISTANCE IN FEET (TWISTED PAIR WIRE)
125 VRMS	5.00 V	1200
100 VRMS	4.00 V	1600
75 VRMS	3.00 V	2000
50 VRMS	2.00 V	2400
25 VRMS	1.00 V	2800
12.5 VRMS	0.50 V	3200

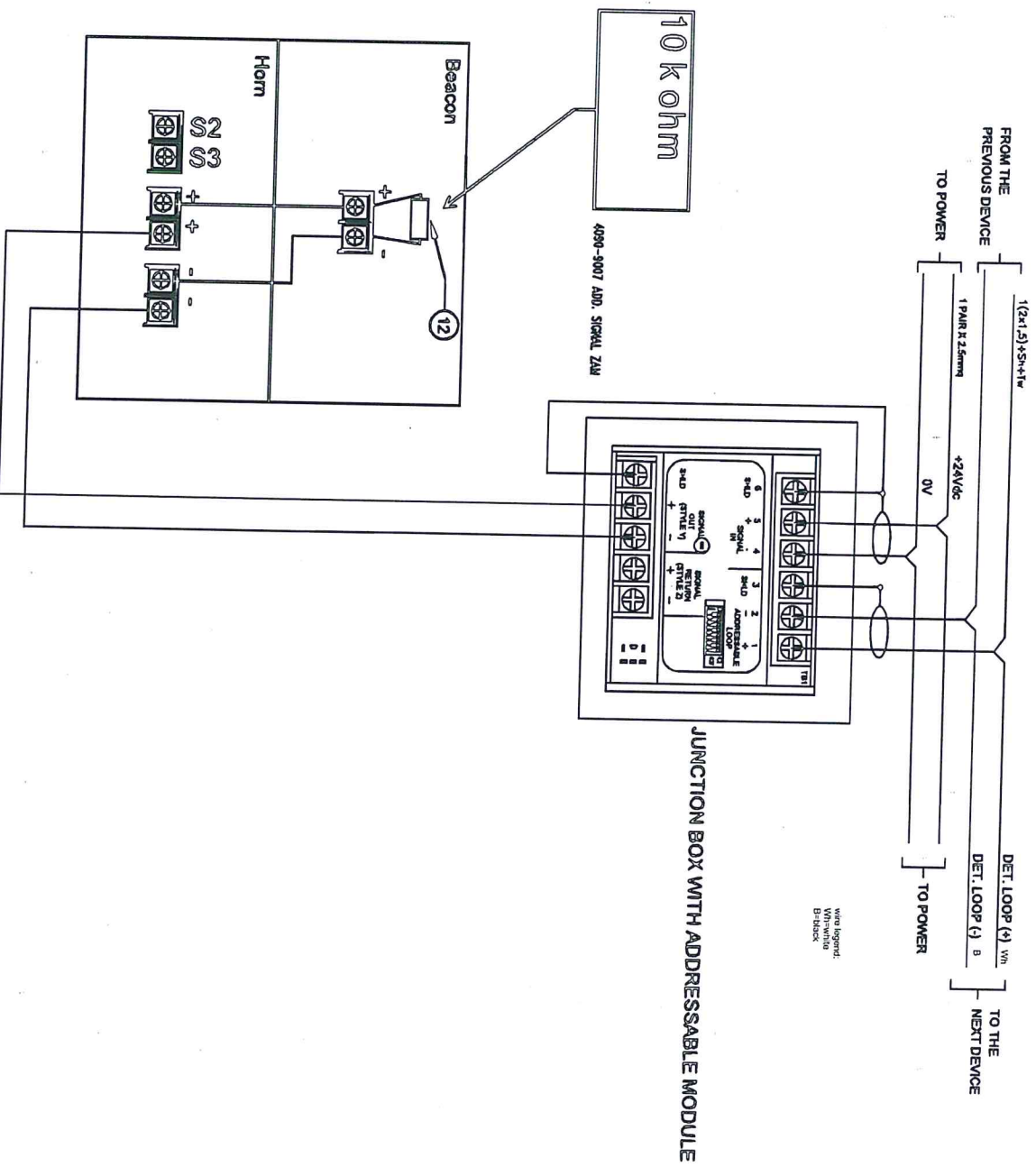
11. ALL CONNECTIONS MUST TEST FREE OF GROUNDS.
12. SEE INSTALLATIONS INSTRUCTIONS 579-670.
13. WHEN COMMUNICATION WIRING OR OPERATING WIRING LEAVES THE BUILDING, OVERVOLTAGE PROTECTORS ARE REQUIRED.





# ADDRESSABLE HORN WITH STROBE

SKETCH FOR INTERCONNECTION



# PRODUCT INFORMATION

## FEATURES:

- UL LISTED
- 4090-9101, CLASS B (STYLE B) MONITORING
- COMPATIBLE WITH SIMPLEX ADDRESSABLE FIRE ALARM CONTROL PANELS
- ZAM POWER IS SUPPLIED SEPARATELY (TYPICALLY FROM FIRE ALARM CONTROL PANEL)

## SPECIFICATIONS:

- VOLTAGE: 18 TO 32VDC (NOMINAL 24VDC)
- CURRENT @ 24VDC: SUPERVISORY-150mA MAXIMUM
- ALARM=72mA MAXIMUM (ACTUAL CURRENT IS DETERMINED BY TOTAL DEVICE REQUIREMENTS)
- WIRE CONNECTIONS: SCREW TERMINALS FOR IN/OUT WIRING, #18 TO #14 AWG WIRE
- DIMENSIONS: 4 1/8" H x 4 1/8" W x 1 3/8" D (105mm x 105mm x 35mm)
- HOUSING MATERIAL: BLACK THERMOPLASTIC
- MOUNTING PLATE MATERIAL: SHEET METAL, GALVANIZED
- TEMPERATURE RANGE: 32° F TO 120° F (0° C TO 49° C)
- INTENDED FOR INDOOR OPERATION
- HUMIDITY RANGE UP TO 93% RH AT 100° F (38° C)
- DETECTOR POWER NOMINAL 24 VDC, 100mA MAX. LOAD.
- COMPATIBLE WITH 4000 FIRE ALARM CONTROL PANEL.
- 3.3K, 1W, END OF LINE RESISTOR SUPPLIED WITH ZAM.

## DESCRIPTION:

IDNet MONITOR ZAMS ALLOW A SINGLE ADDRESSABLE POINT TO MONITOR A CONVENTIONAL INITIATING DEVICE CIRCUIT (IOC) ZONE POPULATED WITH 4-WIRE INITIATING DEVICES.

## WIRING NOTES:

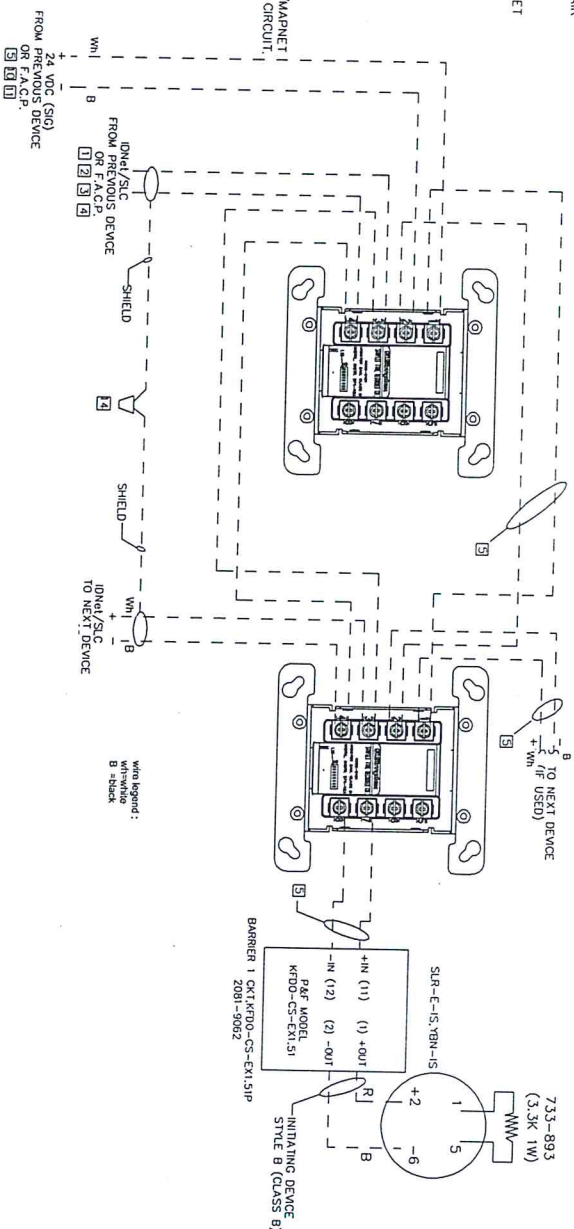
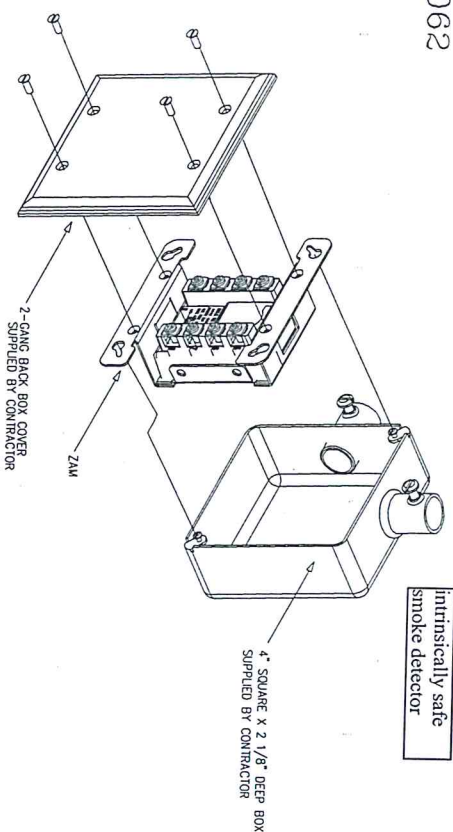
1. ADDRESSABLE COMMUNICATION LINES ARE TO BE #18 AWG TWISTED PAIR SHIELD RECOMMENDED.
2. MAXIMUM ALLOWABLE LINE RUN FROM THE FACP TO THE FARTHEST DEVICE NOT TO EXCEED 2500 FEET. MAXIMUM TOTAL WIRE (INCLUDING 58.8' (18M) ON CIRCUIT FROM THE FACP NOT TO EXCEED 10,000 FEET
3. MAXIMUM QUANTITY OF DEVICES PER CIRCUIT: CONTROL PANEL MODULE DEPENDENT.
4. TO LOCAL CODE MINIMUM #18 AWG WIRE RECOMMENDED
5. SEE INSTALLATION INSTRUCTIONS 574-1B3
6. IF ZONE IS WIRED FOR FIRE ALARM VERIFICATION, WIRE ONLY 2-WIRE SMOKE DETECTORS TO THAT ZONE. DO NOT USE ANY OTHER TYPE OF DEVICES ON THE SAME ZONE.
7. POWER WIRING TO ZAM IS SUPERSEDED. POWER TO DETECTORS ONLY SUPERSEDED IF END-OF-LINE RELAY, PID 2098-9739, IF USED.
8. POWER MUST BE PROVIDED FROM THE FACP, 4009 OR REGULATED POWER SUPPLY. 24V SUPPLY THAT IS LISTED FOR FIRE-PROTECTIVE SIGNAL USE.
9. FOL RELAY, IF PRESENT, MUST BE INSTALLED AFTER LAST DEVICE.
10. IF SHIELD IS PRESENT, IT SHOULD BE CONNECTED TO OUTGOING IDNet/MAPNET SHIELD TO PROVIDE A CONTINUOUS SHIELD OVER THE LENGTH OF THE CIRCUIT.
12. REFER TO FIELD WIRING DIAGRAM 842-073

# 4090-9101 IDNet, CLASS B 4 WIRE DETECTOR MONITOR ZAM

## WITH SLR-E-IS, YBN-IS

## WITH BARRIER 1 CKT, KFDO-CS-EX1.51P

2081-9062



## PRODUCT INFORMATION

### FEATURES:

- UL LISTED STANDARD 864
- DUAL PORT, BI-DIRECTIONAL COMMUNICATIONS ISOLATOR FOR USE WITH SIMPLEX 4100U SERIES FIRE ALARM CONTROL PANEL IDNET SIGNAL LINE CIRCUITS (C/S).
- EITHER PORT CAN SERVE AS AN INPUT OR OUTPUT. PORTS ARE AUTOMATICALLY SEPARATED WHEN A COMMUNICATIONS SHORT CIRCUIT OCCURS.
- ISOLATION CAN ALSO BE INITIATED FROM THE 4100U CONTROL PANEL FOR SYSTEM DIAGNOSTICS, WIRING PROBLEMS:
- BUILT-IN CONTROL PANEL DIAGNOSTICS ASSIST IN LOCATING EARTH FAULT CONDITIONS - THE MOST COMMON INSTALLATION WIRING PROBLEM
- FOR CLASS B (STYLE 4) OR CLASS A (STYLE 6) WIRING: CLASS A WIRED SLCs CAN OPTIMIZE OPERATION BY MAINTAINING COMMUNICATIONS WITH DEVICES OUTSIDE OF THE ISOLATED WIRING SELECTION

### SPECIFICATIONS:

- WIRE CONNECTIONS: SCREW TERMINALS FOR IN/OUT WIRING FOR WIRE FROM #18 TO #14 AWG
- DIMENSIONS: 4 1/8" H X 4 1/8" W X 1 3/8" D
- TEMPERATURE RANGE: 32°F TO 120°F (INDOOR OPERATION ONLY)
- HUMIDITY: 0 TO 90% RH @ 90°F (32°C)
- HOUSING MATERIAL:
- BLACK THERMOPLASTIC

### DESCRIPTION:

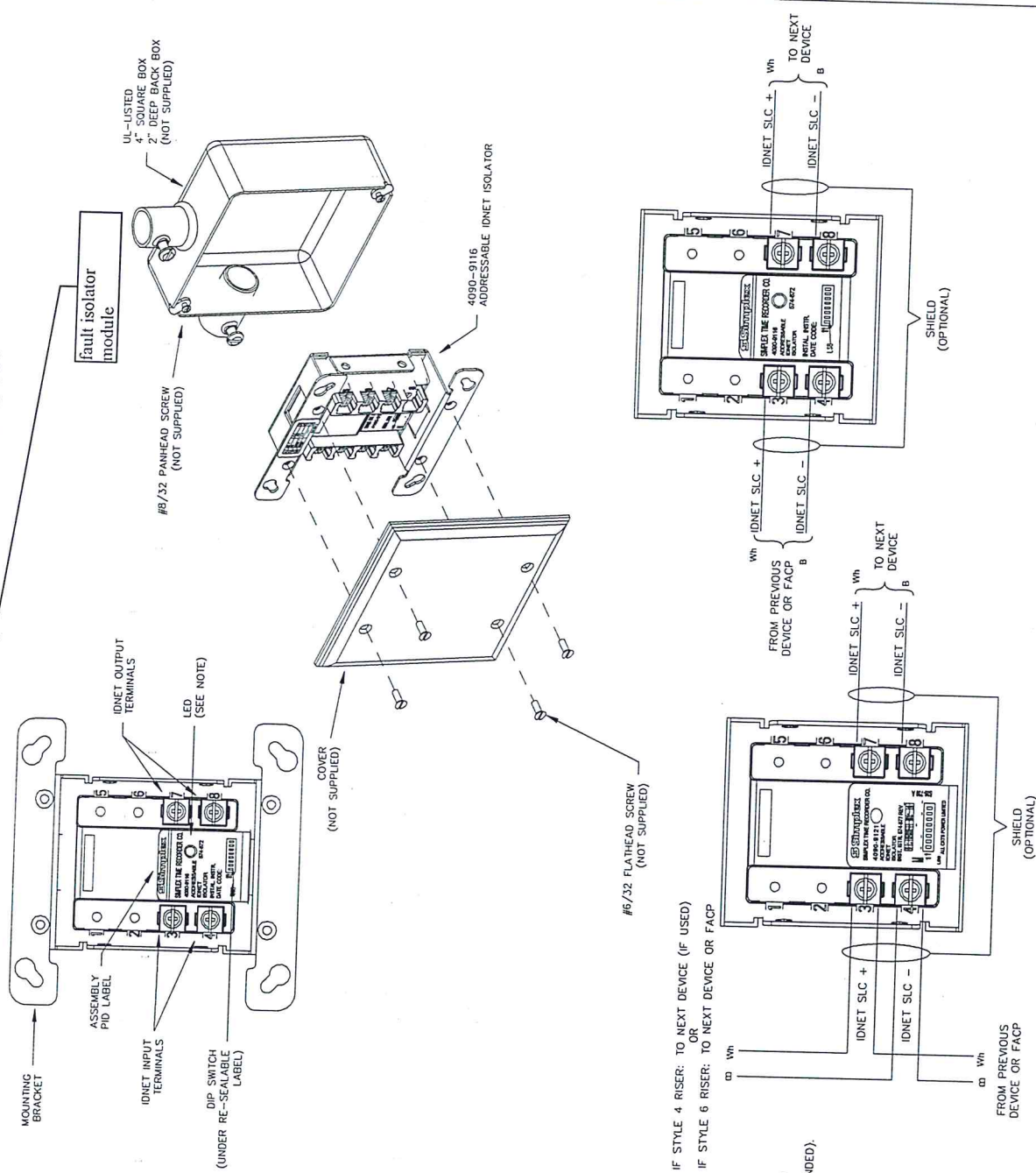
4090-9116 IDNET COMMUNICATIONS ISOLATOR PROVIDES COMMUNICATIONS ISOLATION TO IMPROVE INSTALLATION CONVENIENCE AND INCREASE SYSTEM INTEGRITY. MOUNTING REQUIRES A STANDARD 4-INCH SQUARE ELECTRICAL BOX, ALLOWING THE ISOLATOR TO BE CONVENIENTLY INSTALLED WHERE PROTECTION IS MOST LIKELY TO BE DESIRED.

- SHORT CIRCUIT ISOLATION:
  - AN INTERNAL ISOLATION RELAY ALLOWS A COMPATIBLE FIRE ALARM CONTROL PANEL TO SEPARATE SHORTED COMMUNICATIONS WIRING FROM FUNCTIONING WIRING TO OPTIMIZE THE AVAILABLE SENSORS OR OTHER IDNET ADDRESSABLE DEVICES.
  - THE ISOLATOR'S STATUS IS COMMUNICATED TO THE CONTROL PANEL, ALLOWING IT TO ASSIST IN IDENTIFYING THE LOCATION OF THE SHORTED WIRING.
  - LED INDICATES COMMUNICATIONS POLLING STATUS AND THE STATUS BECOMES STEADY ON WHEN THE ISOLATOR IS IN ISOLATION MODE.
- EARTH FAULTS:
  - DURING INSTALLATION, EARTH FAULTS FREQUENTLY OCCUR. FINDING THESE FAULTS IS NORMALLY REQUIRES EXTENSIVE WIRING DISCONNECTION WITH THE 4090-9116. EARTH FAULTS ON THE IDNET COMMUNICATION LINES CAN BE QUICKLY LOCATED TO ASSIST IN THE REPAIR AND TO RESTORE THE SYSTEM WIRING TO NORMAL.

### WIRING NOTES:

1. MAXIMUM ALLOWABLE RUN FROM FACP TO FARTHEST DEVICE NOT TO EXCEED 2500 FEET. MAXIMUM TOTAL WIRE (INCLUDING T-TAPS) FROM FACP IS 10000 FEET.
2. THE ADDRESSABLE IDNET ISOLATOR COUNTS AS ONE UNIT LOAD.
3. IDNET WIRING IS SUPERVISED AND POWER-LIMITED.

## 4090-9116 ADDRESSABLE IDNET COMMUNICATIONS ISOLATOR





# 4098-9755 ADDRESSABLE 2-WIRE DUCT SENSOR MAPNET II/IDNet

## PRODUCT INFORMATION

- FEATURES:**
- COMPACT AIR DUCT SENSOR HOUSING WITH CLEAR COVER TO MONITOR FOR THE PRESENCE OF SMOKE
  - INCLUDES FACTORY INSTALLED TRUEALARM PHOTOELECTRIC SMOKE DETECTOR AND FEATURES:
    - INDIVIDUAL SENSOR INFORMATION PROCESSED BY THE HOST
    - ADDRESSABLE PANEL TO DETERMINE SENSOR STATUS
    - DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II OR IDNet FIRE COMMUNICATIONS
    - PROGRAMMABLE SENSITIVITY FOR PRESENT ACCURACY, ENVIRONMENTAL COMPENSATION, SENSITIVITY TESTING, AND MONITORING OF SENSOR DIRT ACCUMULATION
  - MODEL 4098-9755 DUCT SENSOR HOUSING (NO RELAY OUTPUT) POWERED BY MAPNET II/IDNet COMMUNICATIONS

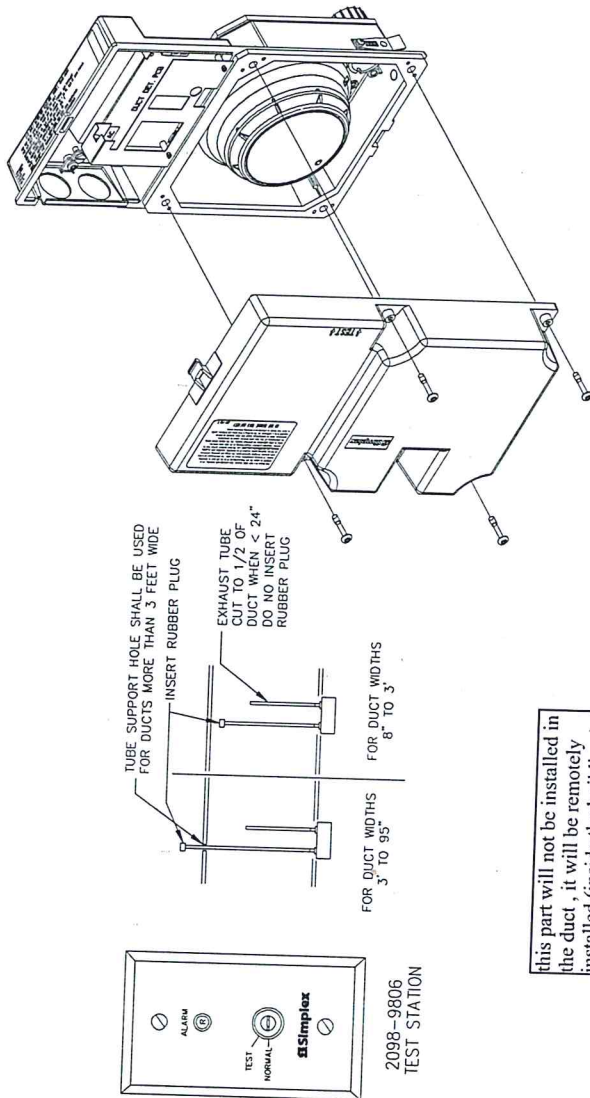
- GENERAL FEATURES:**
- UL LISTED TO STANDARD 268A
  - CLEAR COVER ALLOWS VISUAL INSPECTION
  - TEST PORTS PROVIDE FUNCTIONAL SMOKE TESTING ACCESS WITH COVER IN PLACE
  - MOUNTS TO RECTANGULAR DUCTS OR ROUND DUCTS (MINIMUM SIZE 8" SQUARE OR 18" DIAMETER)
  - MAGNETIC TEST FEATURE FOR ALARM INITIATION AT HOUSING
  - OPTIONAL WEATHERPROOF ENCLOSURE IS AVAILABLE SEPARATELY (REFER TO DATA SHEET 50098-0032)
- DIAGNOSTIC LEDS (ON INTERFACE BOARD):**
- RED ALARM/TROUBLE LED FOR SENSOR STATUS AND COMMUNICATIONS POLLING DISPLAY
  - SAMPLING TUBES (ORDERED SEPARATELY):
    - AVAILABLE IN MULTIPLE LENGTHS TO MATCH DUCT SIZE
    - INSTALLED AND SERVICED WITH HOUSING IN PLACE
- REMOTE MODULE OPTIONS (ORDERED SEPARATELY):**
- RED STATUS/ALARM LED (2098-9808)
  - TEST STATION WITH LED (2098-9806)

## SPECIFICATIONS:

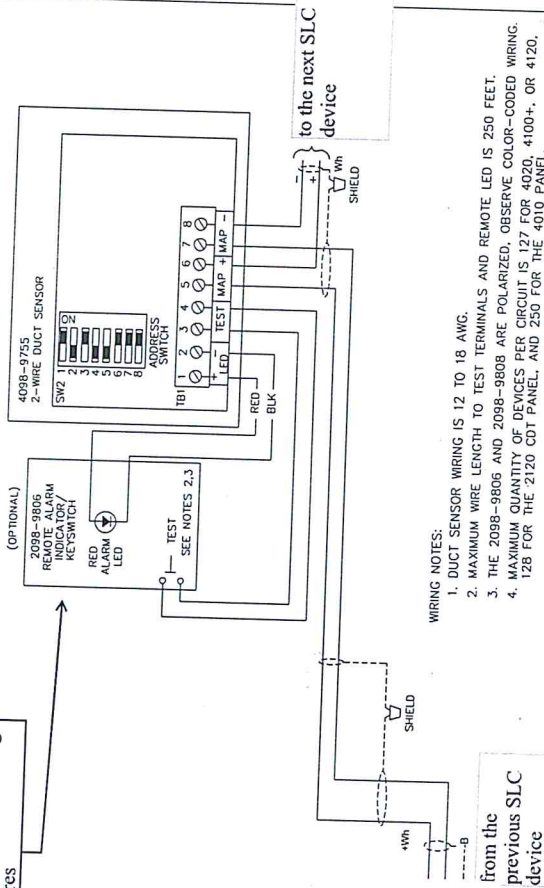
GENERAL SPECIFICATIONS	
AIR VELOCITY RANGE (LINEAR FT/MIN)	300 TO 4000 FT/MIN (91 TO 1220 m/min)
ALTITUDE	UP TO 8000 FT (2.4 km)
SENSOR SENSITIVITY RANGE	0.2% TO 3.7% PER FOOT OF OBSCURATION, SELECTABLE AT HOST CONTROL PANEL
UL LISTED TEMPERATURE RANGE	32° F TO 100° F (0° C TO 38° C)
OPERATING TEMPERATURE RANGE	32° F TO 122° F (0° C TO 50° C)
STORAGE TEMPERATURE RANGE	0° F TO 140° F (-18° C TO 60° C)
HUMIDITY RANGE	10% TO 95% RH, NON-CONDENSING
HOUSING COLOR	BLACK BASE WITH CLEAR COVER
WIRING CONNECTIONS	TERMINAL BLOCKS, 18 TO 12 AWG
REMOTE STATUS/ALARM LED AND TEST STATION WITH REMOTE STATUS/ALARM LED	
REMOTE ALARM LED CURRENT	1.2 mA, NO IMPACT TO ALARM CURRENT (2098-9808 OR 2098-9806)
TEST STATION KEYSWITCH CURRENT	3.3 mA, NO IMPACT TO ALARM CURRENT (2098-9806)
REMOTE ALARM LED AND TEST STATION DISTANCE	250 FT. (76m) MAXIMUM
ADDRESSABLE OPERATION	
DATA COMMUNICATIONS	MAPNET II OR IDNet COMMUNICATION, AUTO-SELECT 1 ADDRESS PER HOUSING, PROVIDES OPERATING POWER TO MODEL 4098-9755

## DUCT DETECTOR SELECTION CHART

DUCT SMOKE SENSOR HOUSING WITH PHOTOELECTRIC SENSOR	
MODEL	DESCRIPTION
4098-9755	BASIC DUCT SENSOR HOUSING, OPERATING POWER IS SUPPLIED BY EITHER MAPNET II OR IDNet COMMUNICATIONS (NO RELAY OUTPUT)
2098-9808	REMOTE LED INDICATOR AND TEST STATION, SELECT ONE IF REQUIRED
2098-9806	RED LED STATUS INDICATOR
	TEST STATION WITH KEYSWITCH AND RED LED STATUS (TURNING SWITCH TO TEST INITIATES ALARM FOR SYSTEM TESTING)
COMPATIBILITY	
SIMPLEX FIRE ALARM CONTROL MODELS 4010, 4020, 4100 AND 4120, FOR MAPNET II, TRUEALARM OPERATION	
MOUNTING	
USE SINGLE GANG BOX, 3" H X 2" W X 2" D (76 mm X 51 mm X 51 mm)	



this part will not be installed in the duct, it will be remotely installed (inside the building) in the nearest room to the duct by flexible conduit containing the four wires



## WIRING NOTES:

- DUCT SENSOR WIRING IS 12 TO 18 AWG.
- MAXIMUM WIRE LENGTH TO TEST TERMINALS AND REMOTE LED IS 250 FEET.
- THE 2098-9808 AND 2098-9806 ARE POLARIZED, OBSERVE COLOR-CODED WIRING.
- MAXIMUM QUANTITY OF DEVICES PER CIRCUIT IS 127 FOR 4020, 4100+, OR 4120, 128 FOR THE 2120 CDT PANEL, AND 230 FOR THE 4010 PANEL.

# PRODUCT INFORMATION

## FEATURES:

- UL LISTED, FM APPROVED
- TRUEALARM ANALOG SENSING PROVIDES DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II, OR IDNet TWO WIRE COMMUNICATIONS
- FIRE ALARM CONTROL PANEL PROVIDES:
  - INDIVIDUAL SENSITIVITY SELECTION FOR EACH SENSOR
  - PEAK VALUE LOGGING ALLOWING ACCURATE ANALYSIS FOR SENSITIVITY SELECTION
  - AUTOMATIC ENVIRONMENTAL COMPENSATION
  - DISPLAY OF SENSITIVITY IN PERCENT PER FOOT
  - MULTISTAGE ALARM OPERATION
  - ABILITY TO DISPLAY AND PRINT DETAILED SENSOR INFORMATION IN PLAIN ENGLISH LANGUAGE
- PHOTOELECTRIC SMOKE SENSOR 4098-9714:
  - SEVEN LEVELS OF SENSITIVITY FROM 0.2% TO 3.7%
- IONIZATION SMOKE SENSOR 4098-9717:
  - FOUR LEVELS OF SENSITIVITY FROM 0.5% TO 1.7%
- HEAT SENSOR 4098-9714:
  - RATE-OF-RISE TEMPERATURE DETECTION IS SELECTABLE AT THE CONTROL PANEL FOR EITHER 15°F OR 20°F PER MINUTE
  - FIXED TEMPERATURE SENSING IS INDEPENDENT OF RATE-OF-RISE AND PROGRAMMABLE TO OPERATE AT 135°F OR 155°F
  - TRUEALARM HEAT SENSORS CAN BE PROGRAMMED AS A UTILITY DEVICE TO MONITOR FOR TEMPERATURE EXTREMES IN THE RANGE FROM 32°F TO 120°F.
  - UL STANDARD SPACING
    - 40 FT SPACING FOR 135°F F
    - 40 FT SPACING FOR 155°F F
- MAGNETIC TEST FEATURE
- LOCKING ANTI-TAMPER DESIGN
- INTEGRAL RED LED FOR POWER-ON (PULSING), OR ALARM OR TROUBLE (STEADY ON)
- ACCESSIBLE FROM FRONT (DIP SWITCH UNDER SENSOR)
- ADDRESS REMAINS WITH ITS PROGRAMMED LOCATION
- FOR USE WITH SIMPLEX 4100, 4020, AND 4120 SERIES CONTROL PANELS
- MAXIMUM QUANTITY OF DEVICES:
  - 127 FOR 4020, 4100, 4120
  - 250 FOR 4010
- MOUNTING: CEILING OR WALL
- COLOR : FROST WHITE
- BASE DIMENSIONS: 15/16" x 4-7/8"

## SPECIFICATIONS:

- UL LISTED TEMPERATURE RANGE: 32°F TO 100°F
- OPERATING TEMPERATURE RANGE: 32°F TO 120°F
- HUMIDITY RANGE: 10% TO 95% RH
- PHOTOELECTRIC SENSOR AIR VELOCITY RANGE: 0-2000 FT/MIN
- IONIZATION SENSOR AIR VELOCITY RANGE: 0-300 FT/MIN
- WIRING CONNECTIONS: SCREW TERMINALS FOR IN/OUT WIRING, #18 TO #14 AWG
- VOLTAGE (MAPNET II/IDNet): 24-40VDC
- COMMUNICATIONS MAPNET II/IDNet: 1 ADDRESS PER BASE

## DESCRIPTION:

TRUEALARM SENSOR BASES CONTAIN INTEGRAL ADDRESSABLE ELECTRONICS THAT CONSTANTLY MONITOR THE STATUS OF THE DETACHABLE PHOTOELECTRIC, IONIZATION, OR HEAT SENSORS. EACH SENSOR'S OUTPUT IS DIGITIZED AND TRANSMITTED TO THE SYSTEM FIRE ALARM CONTROL PANEL EVERY FOUR SECONDS. SINCE TRUEALARM SENSORS USE THE SAME BASE, DIFFERENT SENSOR TYPES CAN BE EASILY INTERCHANGED TO MEET SPECIFIC LOCATION REQUIREMENTS. THIS FEATURE ALLOWS INTENTIONAL SENSOR SUBSTITUTION DURING BUILDING CONSTRUCTION WHEN CONDITIONS ARE TEMPORARILY DUSTY, INSTEAD OF COVERING THE SMOKE SENSORS. HEAT SENSORS MAY BE INSTALLED WITHOUT REPROGRAMMING THE CONTROL PANEL. ALTHOUGH THE CONTROL PANEL WILL INDICATE AN INCORRECT SENSOR TYPE, THE HEAT SENSOR WILL OPERATE AT A DEFAULT SENSITIVITY PROVIDING HEAT DETECTION FOR BUILDING PROTECTION AT THAT LOCATION.

## WIRING:

1. ALL WIRING TO COMPLY WITH LOCAL CODE
2. CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
3. MAINTAIN CORRECT POLARITY
4. MAPNET II/IDNet WIRING TO BE #18 AWG TWISTED SHIELDED PAIR
5. REMOTE LED AND RELAY WIRES ARE NOT SUPERSEDED
6. REFER TO INSTALLATION INSTRUCTIONS (574-707)
7. REFER TO APPLICATION MANUAL (574-709)
8. IF SHIELD IS USED, TWIST SHIELD WIRES TOGETHER AND CAP WITH WIRE NUT. SHIELD SHOULD BE INSULATED FROM ELECTRICAL BOX
9. DO NOT USE REMOTE LED IF THE 4098-9822 RELAY MODULE IS USED.

# 4098-9789 BASE WITH REMOTE LED/RELAY OUTPUT FOR CONNECTION 4098-9734 & 4098-9714

## OPTIONS:

- 2098-9808: REMOTE ALARM INDICATOR, PROVIDES A REMOTE RED LED STATUS INDICATOR MOUNTED ON A SINGLE GANG STAINLESS STEEL PLATE.
- \*4098-9822: RELAY (MOUNTS IN BASE ELECTRICAL BOX 4" OCTAGONAL, 2-1/8" DEEP WITH 1-1/2" EXTENSION RING)
  - ACTIVATES WHEN BASE LED IS STEADY ON, INDICATING LOCAL ALARM OR TROUBLE
  - DPDT CONTACTS, RATED 2A MAX. @ 24 VDC OR 0.5A MAX. @ 120VAC, FOR TRANSIENT SUPPRESSED LOADS (REQUIRES EXTERNAL 24 VDC)

heat and smoke detector

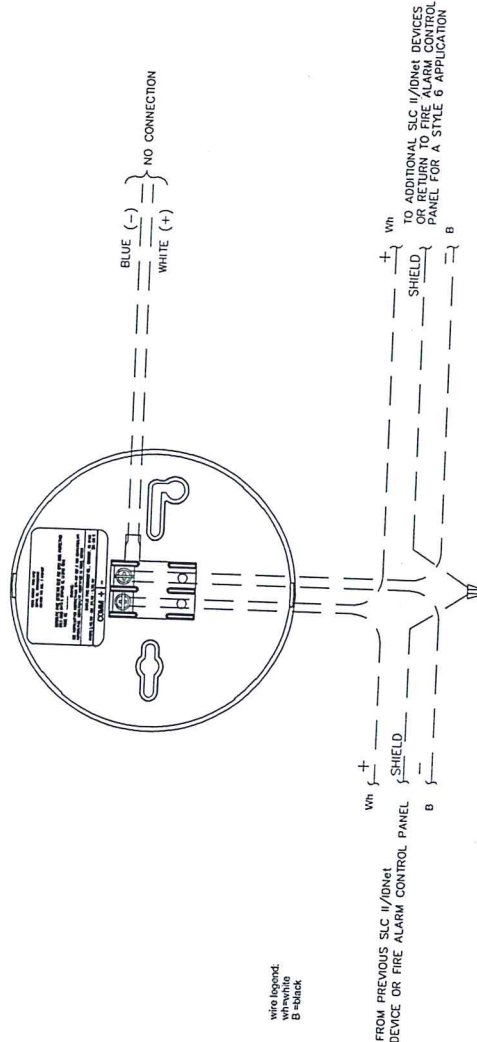
4" x 1 1/2" DEEP OCTAGONAL  
4" SQUARE x 1 1/2" DEEP, WHICH REQUIRES A 4098-9832 ADAPTER PLATE (6-3/8" x 1 1/4") BOX SUPPLIED BY CONTRACTOR

SLC II/IDNet ADDRESS DIP SWITCHES  
SEE BASE INSTALLATION INSTRUCTIONS  
574-707 FOR SETTINGS

SENSOR HEADS  
4098-9714 PHOTOELECTRIC SMOKE SENSOR  
4098-9717 IONIZATION SMOKE SENSOR

4098-9734 HEAT SENSOR

FLUSH MOUNTING  
(BOX TO BE FLUSH OR RECESSED 1/4" MINIMUM)



wire legend:  
white  
blue  
B-ground

FROM PREVIOUS SLC II/IDNet  
DEVICE OR FIRE ALARM CONTROL PANEL

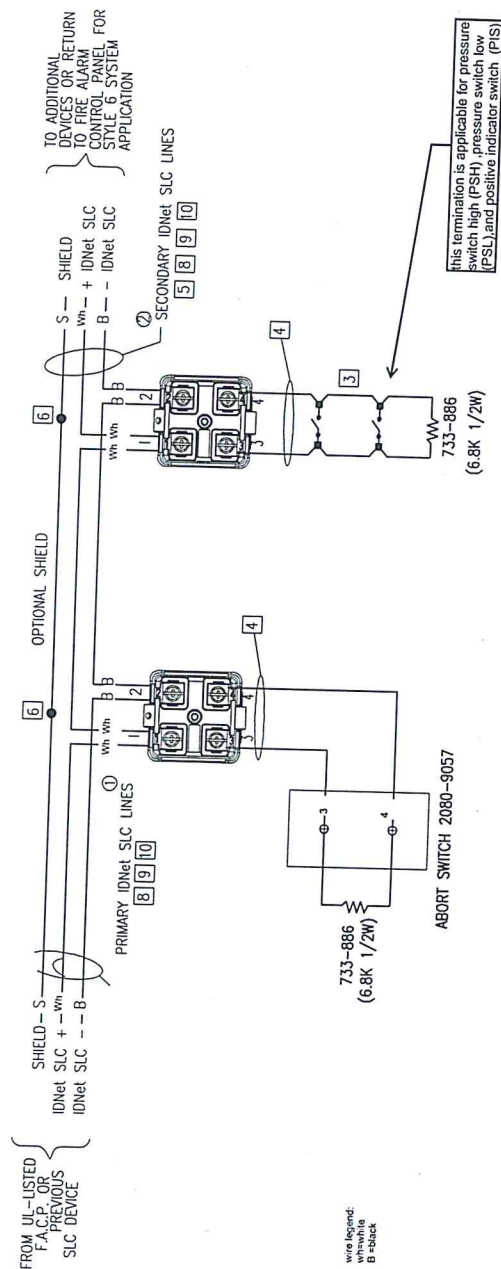
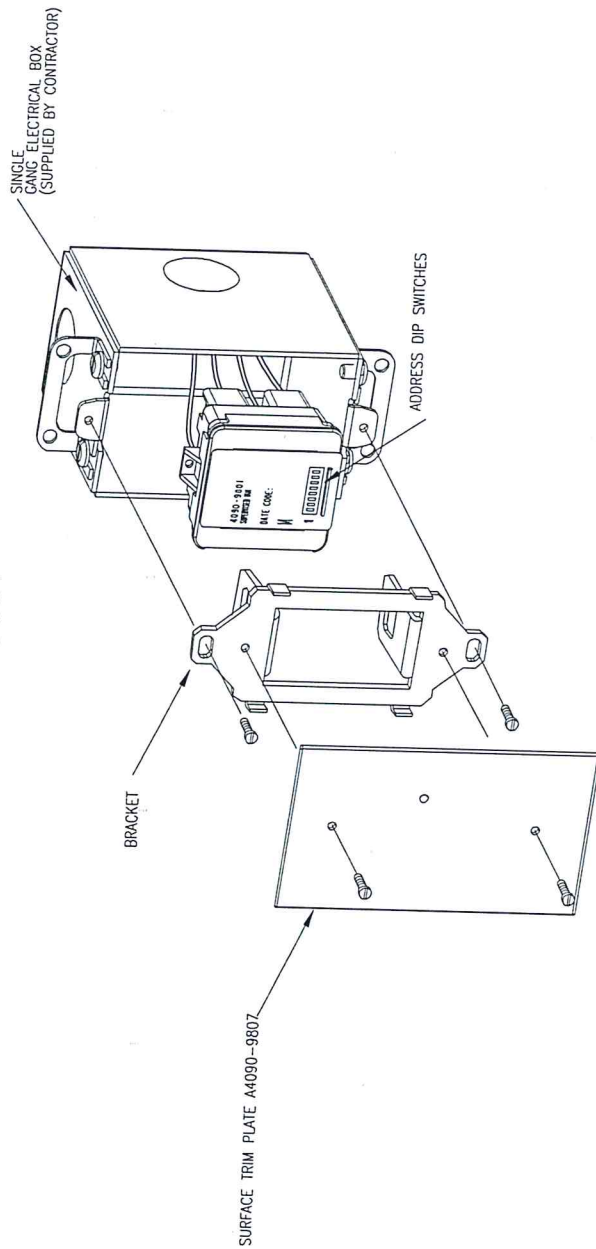
V+ +  
SHIELD  
B -

V- +  
SHIELD  
B -

TO ADDITIONAL SLC II/IDNet DEVICES  
OR FIRE ALARM CONTROL  
PANEL FOR A STYLE 6 APPLICATION



# A4090-9001 IDNET SLC, SUPERVISED ADDRESSABLE INPUT MODULE (AIM) WITH ABORT SWITCH 2080-9057

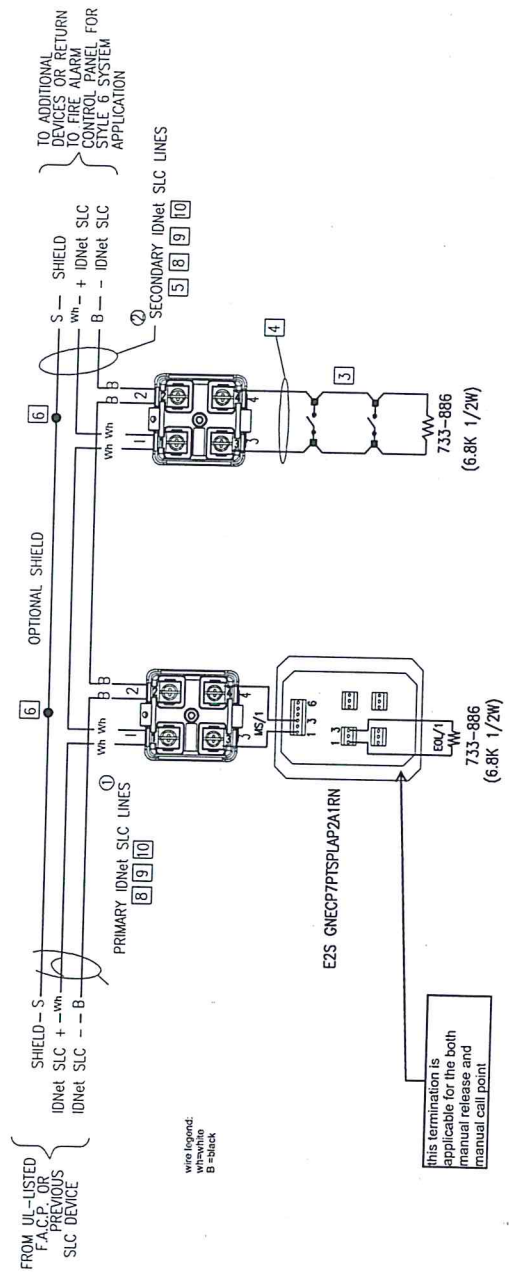
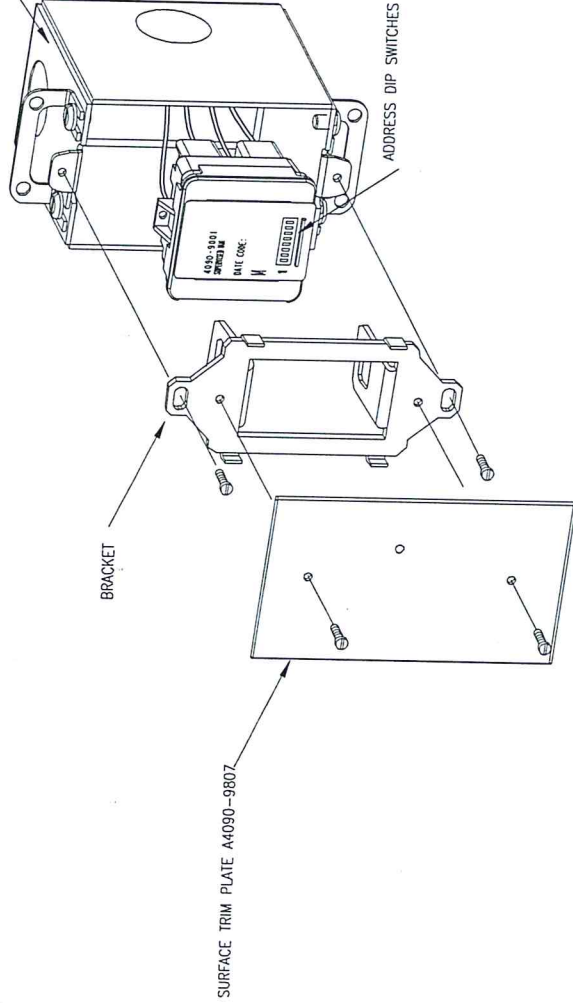




# A4090-9001 IDNET SLC, SUPERVISED ADDRESSABLE INPUT MODULE (AIM) WITH E2S GNEXCP7PTSPLAP2AIRN AND GNEXCP7PTSPLAP2A1YN

manual release

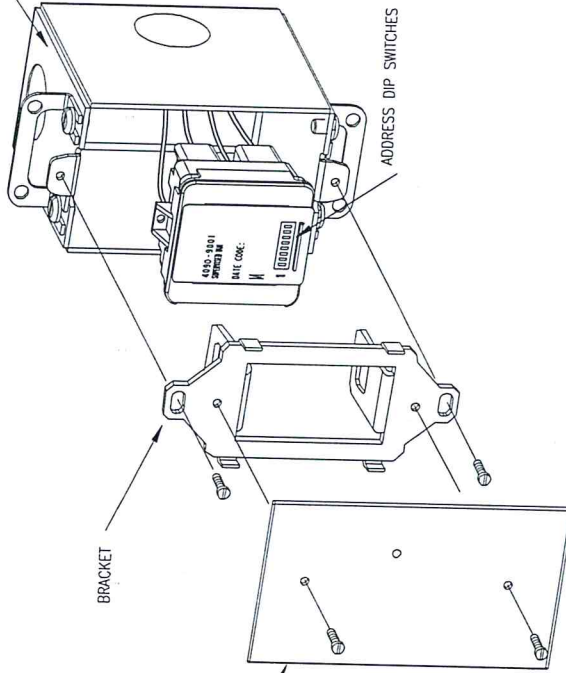
SINGLE GANG ELECTRICAL BOX  
(SUPPLIED BY CONTRACTOR)



# A4090-9001 IDNET SLC, SUPERVISED ADDRESSABLE INPUT MODULE (AIM) WITH FENWAL 27121-000-225

Rate of compensate heat detector

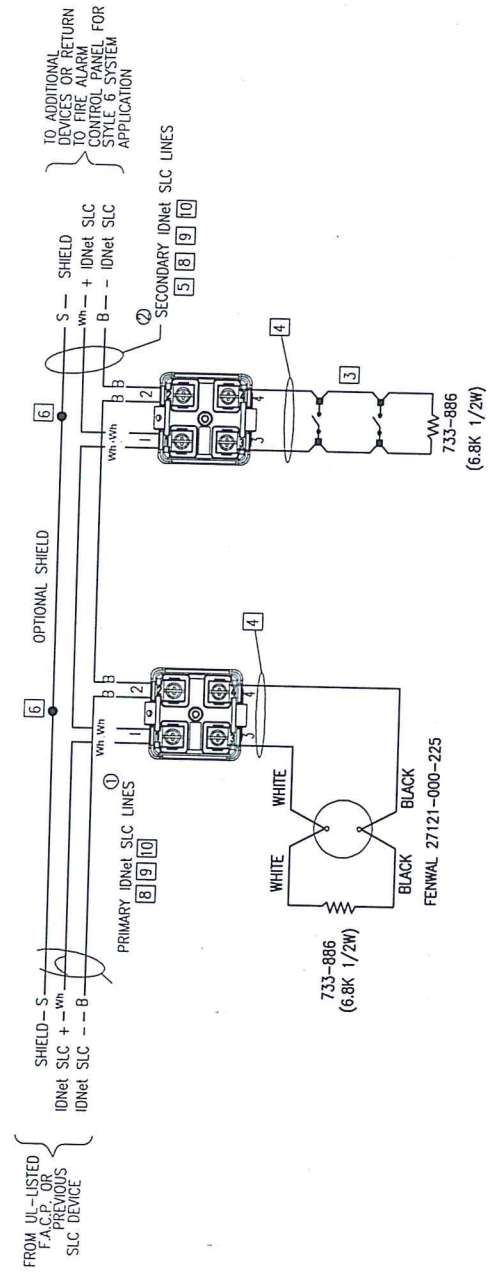
SINGLE GANG ELECTRICAL BOX  
(SUPPLIED BY CONTRACTOR)



BRACKET

SURFACE TRIM PLATE A4090-9807

ADDRESS DIP SWITCHES



# A4090-9001 IDNET SLC, SUPERVISED ADDRESSABLE INPUT MODULE (AIM) WITH JANUS. MAS-399990

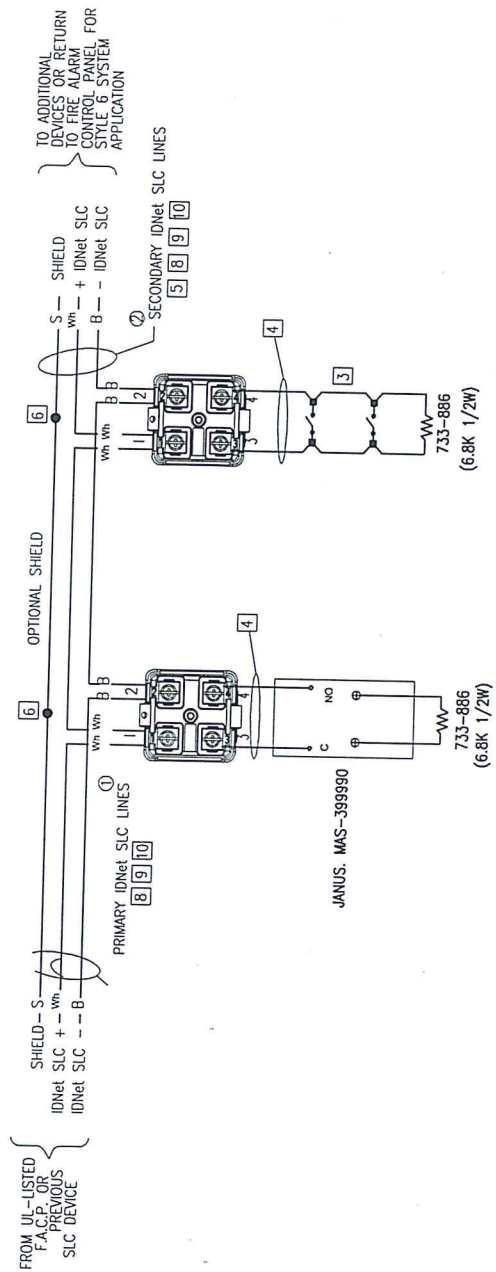
EX Abort switch

SINGLE GANG ELECTRICAL BOX  
(SUPPLIED BY CONTRACTOR)

BRACKET

SURFACE TRIM PLATE A4090-9807

ADDRESS DIP SWITCHES



Wiring Legend:  
Wm=white  
B=black  
NO=normally open  
C=common



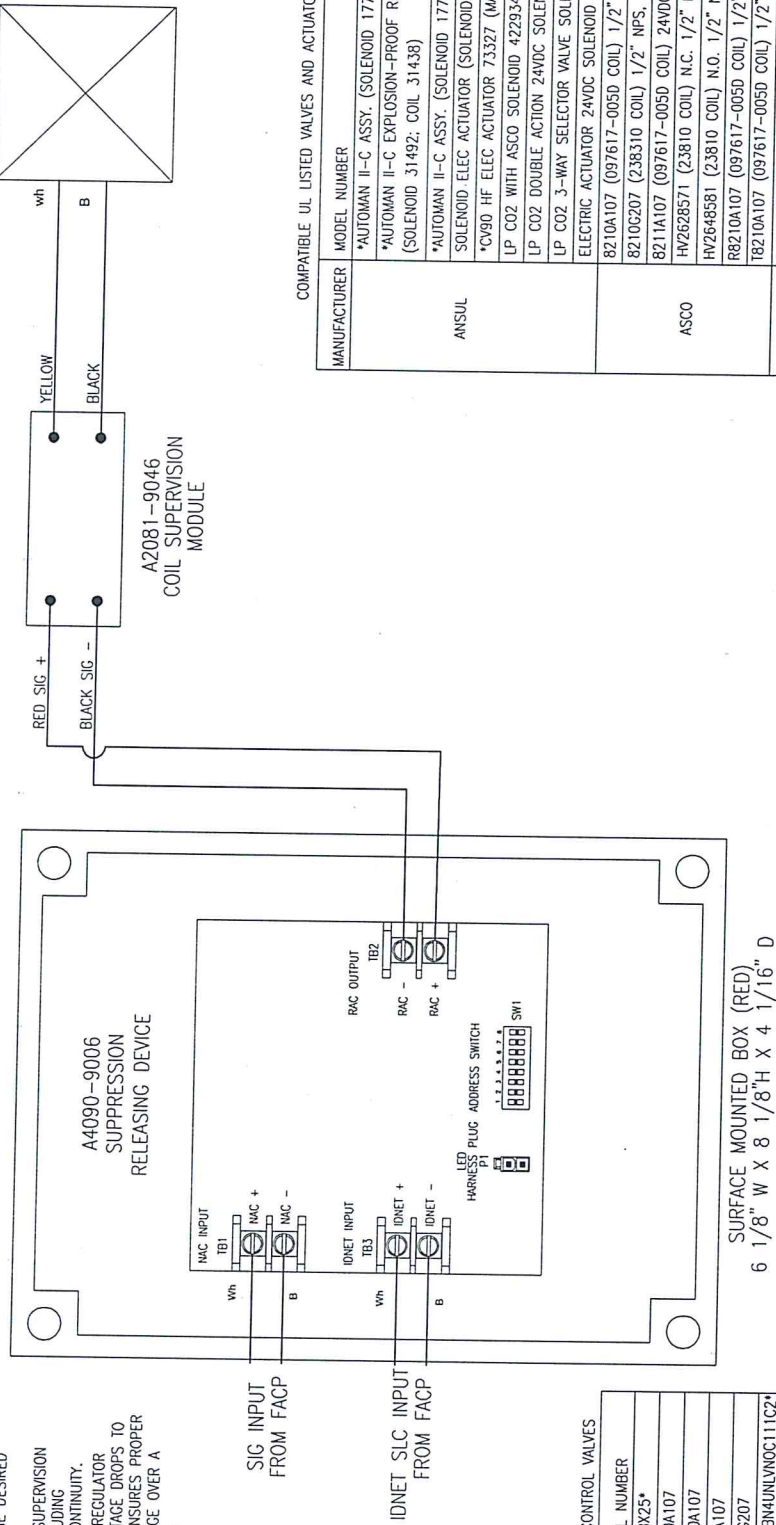
# A4090-9006 SUPPRESSION RELEASING DEVICE WITH A2081-9046 COIL SUPERVISION MODULE

## PRODUCT INFORMATION

### FEATURES:

- UL LISTED TO STANDARD 864
- ULC LISTED
- FM APPROVED
- DUAL COMMAND CONTROL REQUIRES THAT BOTH IDNET SLC COMMUNICATIONS COMMANDS AND AN ACTIVATED NAC ARE PRESENT TO INITIATE THE DESIRED RELEASE.
- NAC PROVIDES WIRING SUPERVISION TO THE ACTUATOR INCLUDING MONITORING OF COIL CONTINUITY.
- AN ON-BOARD DC-DC REGULATOR COMPENSATES FOR VOLTAGE DROPS TO THE PERIPHERAL AND ENSURES PROPER CONTROL CIRCUIT VOLTAGE OVER A WIDE OPERATING RANGE.

Wire legend:  
White  
Black



## FM APPROVED CONTROL VALVES

FM GROUP	MANUFACTURER	MODEL NUMBER
A	SKINNER	LV2LBX25*
B	ASCO	T8210A107 R8210A107 8210A107
D	ASCO	8210C207
E	SKINNER	73218BN4UNLVNOC111C2*
F	SKINNER	73212BN4TNLVNOC322C2
G	SKINNER	71395SV2ENJNOH111C2
I	VITALIC	SERIES 753-E SOL VALVE
J	VIKING	11591 AND 11592
K	VIKING	11595 AND 11596 11601 AND 11602

\*FOR NEW APPLICATIONS, LV2LBX25 HAS BEEN REPLACED BY MODEL NUMBER 73218BN4UNLVNOC111C2

## COMPATIBLE UL LISTED VALVES AND ACTUATORS

MANUFACTURER	MODEL NUMBER
ANSUL	*AUTOMAN II-C ASSY. (SOLENOID 17728; COIL 25924)
	*AUTOMAN II-C EXPLOSION-PROOF RELEASING DEVICE (SOLENOID 31492; COIL 31438)
	*AUTOMAN II-C ASSY. (SOLENOID 17728; COIL 25924)
	SOLENOID ELEC ACTUATOR (SOLENOID 73111; COIL 73097)
	*CV90 HF ELEC ACTUATOR 73327 (MAY USE 73606 RES.)
	LP CO2 WITH ASCO SOLENOID 422934
ASCO	LP CO2 DOUBLE ACTION 24VDC SOLENOID 430948
	LP CO2 3-WAY SELECTOR VALVE SOLENOID 433419
	ELECTRIC ACTUATOR 24VDC SOLENOID 570537
	8210A107 (097617-005D COIL) 1/2" NPS, 5/8" ORIFICE
	8210C207 (238310 COIL) 1/2" NPS, 1/2" ORIFICE
	8211A107 (097617-005D COIL) 24VDC
PYRO-CHEM	HV2628571 (23810 COIL) N.C. 1/2" NPS, 1/2" ORIFICE
	HV2648581 (23810 COIL) N.O. 1/2" NPS, 1/2" ORIFICE
	R8210A107 (097617-005D COIL) 1/2" NPS, 5/8" ORIFICE
	T8210A107 (097617-005D COIL) 1/2" NPS, 5/8" ORIFICE
	ECH ELECTRICAL CONTROL HEAD (551201)
	EXPLOSION-PROOF ELECTRIC ACTUATOR (570147)
SKINNER	REMOVABLE ELECTRIC ACTUATOR (570209) 0.2A
	71395SV2ENJNOH111C2 (SKINNER COIL H111C2)
	73212BN4TNLVNOC322C2 (SKINNER COIL C111C2)
	73218BN4UNLVNOC111C2 (SKINNER COIL C111C2)
	73218BN4UNLVNOC111C2 (SKINNER COIL C111C2)

\*12VDC COILS. EITHER WIRE TWO IN SERIES FOR 24VDC ACTIVATION, OR, IF AVAILABLE FROM THE MANUFACTURER, USE SERIES RESISTOR.

SIZE	DWG NO.
A	0841-804



TO NEXT  
MAPNET DEVICE

- NOTES:

1. MAPNET 11 LINES ARE TO BE #18 AWG TWISTED SHIELDED PAIR (CONSULT STR SALES ENGINEERING FOR EXCEPTIONS). 24VDC WIRING TO BE MINIMUM #18 AWG, OR TO LOCAL CODE.
2. MAXIMUM ALLOWABLE LINE RUN FROM PANEL TO FARTHEST DEVICE IS 2500 FEET MAXIMUM ALLOWABLE RESISTANCE IN THIS LINE RUN IS 35 OHMS.
3. TONE WIRE ON THIS MAPNET 11 CIRCUIT, INCLUDING T-TAPS, NOT TO EXCEED 10,000 FEET MAXIMUM DEVICES IS 12T.
4. FOR MAXIMUM VOLTAGE DROP ETC., REFER TO STR SALES ENGINEERING'S 4100/4120 FIELD WIRING GUIDES.
5. SENSOR (POWER, SIGNAL, RETURN) WIRING INHERENTLY SUPERVISED IF USED TO GENERATE 20mA SIGNAL. MAXIMUM LINE RESISTANCE IS 27 OHMS.
6. SUPERVISED WIRING OPTION. IF SENSOR USES THE TROUBLE RELAY CONNECTION, THEN CUTOUT & REMOVE ON-BOARD VERTICAL-MOUNT RESISTOR AND ADD STR P/N 4081-9004 (6.8K 1/2W) END-OF-LINE RESISTOR, THAT MUST BE INSTALLED AT THE SENSOR. SEE TABLE.
7. USE WIRE NUTS TO INDIVIDUALLY TERMINATE UNUSED WIRES. WIRE NUT, SPLICE, OR SOLDER THE MAPNET SHIELD WIRES.
8. MAXIMUM CURRENT PER 20mA LOOP MONITOR IS 28mA; ADD AN ADDITIONAL 3mA IN ALARM IF REMOTE LED IS USED.
9. MAXIMUM VOLTAGE ON MAPNET LINES IS 40V; ALL OTHERS ARE 32V.
10. TWISTED PAIR WIRING REQUIRED. SEE THE TABLE.

MONITOR WIRE COLOR	DEVICE WIRE DESTINATION MSA MODEL CHILLGARD RT
WHT/RED	J29-2 (TBL-COM) [PAIR 2]
WHT/GRN	J17-2 (1+) [PAIR 1]
RED/BLK	J17-3 RTN) [PAIR 1]
BLK/WHT	J29-3 (TBL-NC) [PAIR 2]

<b>tyco</b> / <i>Safety</i> <b>Products Westminster</b> 50 TECHNOLOGY DRIVE, WESTMINSTER, MA 01441	
TITLE FIELD WIRING DIAGRAM	
EQUIP MAPNET-11	DEVICES
DWG NO.	SHT
A 0841-804	44



## The 20 mA Monitor ZAM, Continued

### MAPNET II 20 mA Monitor ZAM (Continued)

Each Monitor ZAM has a unique address. The address of the ZAM is set via an eight-position DIP switch (Figure 2), DIP switch position 1 is the least significant bit (LSB) and position 8 is the most significant bit (MSB). Set the ZAMs address using Figure 2 as reference. Use a small screwdriver or pen to set the switches. The device address for the Monitor ZAM should be written on the re-sealable label, this information provides an aid in troubleshooting the system.

**Note:** DIP switch in "1" position is "ON" while DIP switch in "0" position is "OFF."

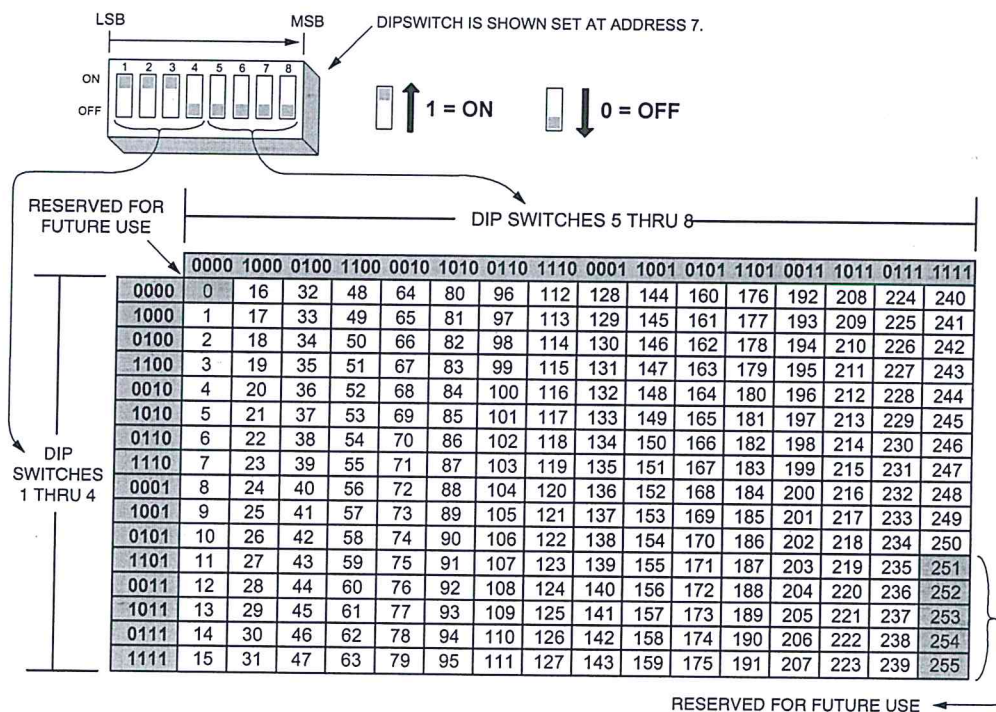


Figure 2. Monitor AMZ Address Chart

### 4100/4120/4020 FACP (MAPNET II Channel)

Configure the monitor ZAM to the host FACP using the 4100, 4120, or 4020 Programmer's Report. The monitor ZAMs address and location must match up with the address listed in the specification sheets of the 4100, 4120, or 4020 Programmer's Report.

### Overview

The AMZ requires connections for MAPNET II or IDNet communications, power from the host source, and sensor signaling. Each type of wiring is described below.

The AMZ MAPNET II/IDNet interface is electrically isolated from the AMZ power and sensor interface wiring. This allows a relatively distant host panel to control the AMZ and monitor the sensor via MAPNET II/IDNet, while a relatively close power source can supply the AMZ/sensor combination. MAPNET II/IDNet and power connections are run separately; their return lines **must not** be interconnected.

Continued on next page



## The 20 mA Monitor ZAM, *Continued*

MAPNET II 20 mA  
Monitor ZAM ,  
(Continued)

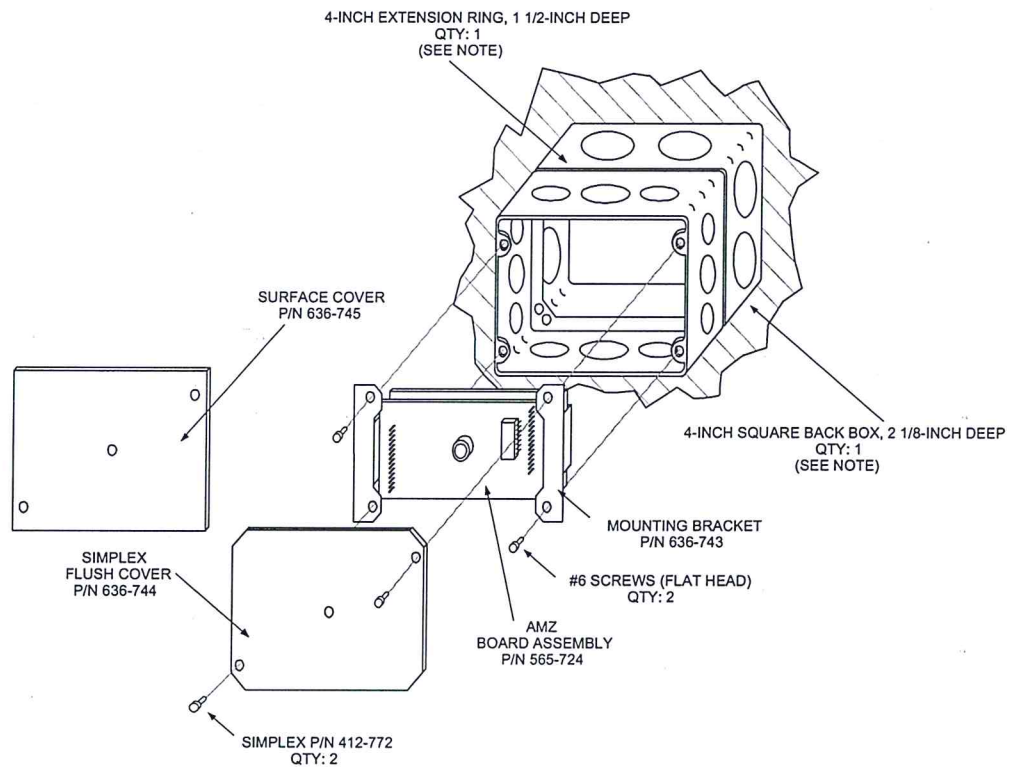
### Mounting the AMZ

The AMZ can be mounted remotely to a back box, or to a 4100/4120 expansion bay. This section illustrates both methods.

Install the remote-mount versions of the AMZ (4190-9050 and 4190-9051) into a 4-inch back box with extension ring using Figure 4 as a reference.

Install the panel-mount version of the AMZ (4100-0540 and 4120-0540) into a 4120 or 4100 expansion bay using Figure 5 as a reference.

**Note:** Rack-mount AMZs are installed left justified into the expansion bay.



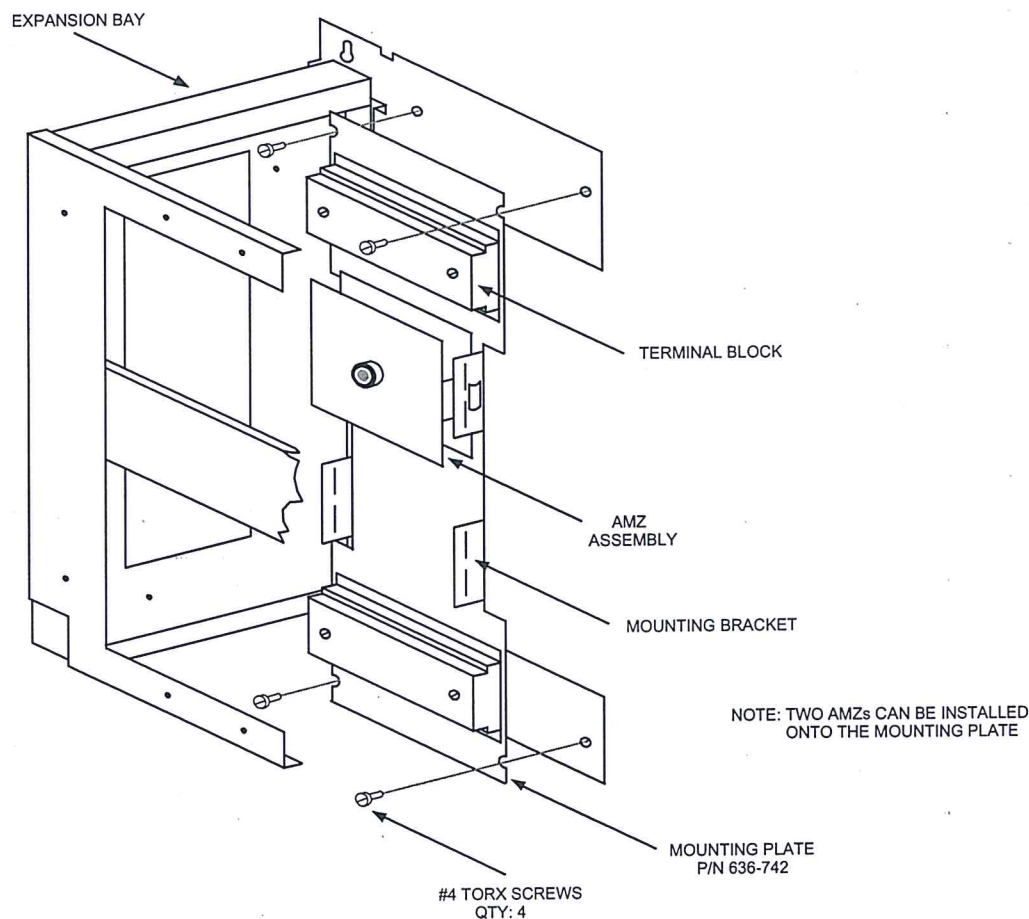
NOTE: Attach extension ring to the front of square back box, making the total 3 5/8 inches deep for either flush or surface mounting.

**Figure 4. 4190-9051, -9052 Remote Mount AMZ Back Box Installation**

*Continued on next page*

## The 20 mA Monitor ZAM, Continued

MAPNET II 20 mA  
Monitor ZAM ,  
(Continued)



**Figure 5. 4100/4120-0540 AMZ Panel Mount Installation**

### Gas Detection Compliance

This product is FM approved for Gas Detection performance when properly connected to an appropriately configured and programmed Simplex 4100/4120 Fire Alarm Control Panel. Panel back box mounting and attendant panel battery positions must comply with the instructions contained in the 4100/4120-6026 FM Gas Detection Shock Mounting Kit. Failure to comply with these instructions is a violation of the FM Approval. There are restrictions on which aftermarket feature(s) can be added to a 4100/4120 that is FM Approved for Gas Detection. Consult Simplex Sales Engineering before modifying any FACP used for Gas Detection.

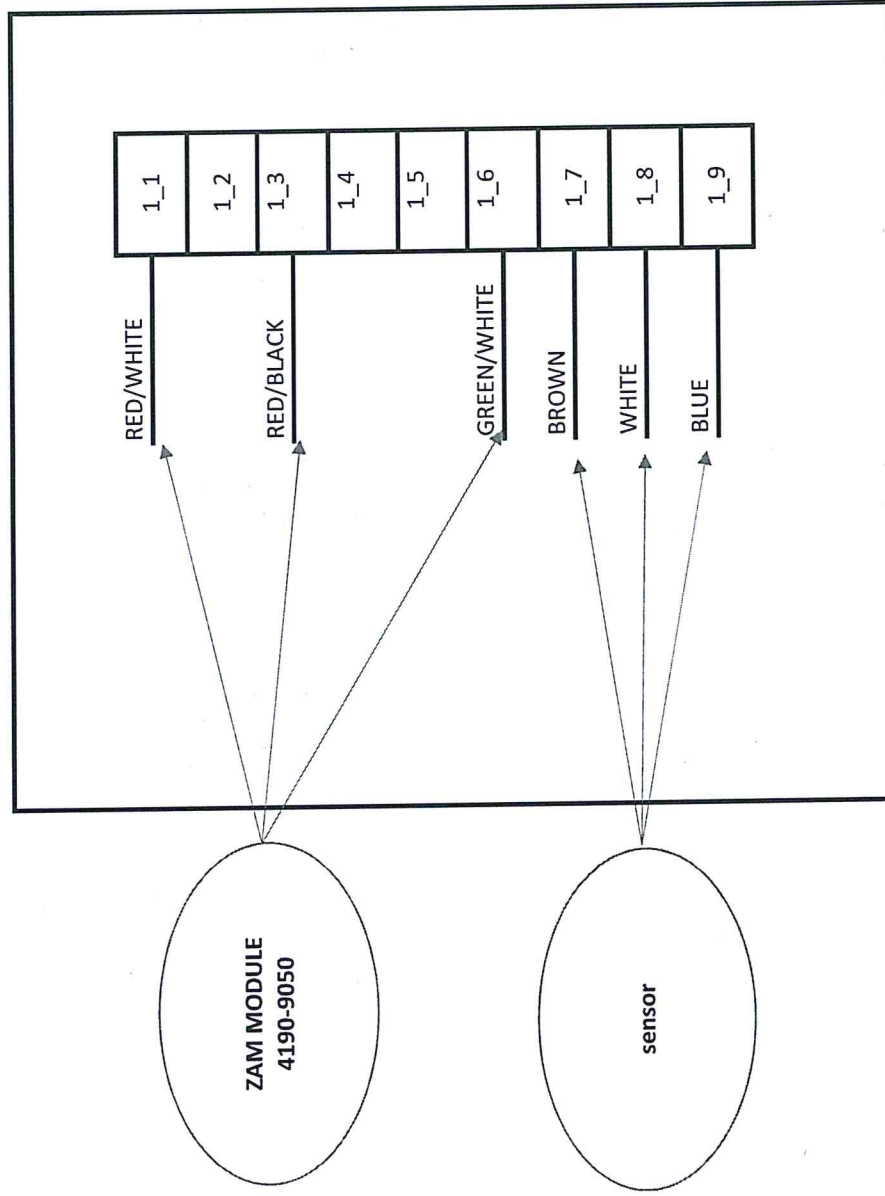
*FMRC APPROVAL OF 4 MA TO 20 MA INPUTS FOR THE MODEL 4100/4120 SYSTEM DOES NOT INCLUDE OR IMPLY APPROVAL OF THE GAS DETECTION APPARATUS SUCH AS THE SENSOR/TRANSMITTER CONNECTED TO THE SYSTEM. IN ORDER TO MAINTAIN FMRC APPROVAL OF THE SYSTEM, ALL 4-20 MA GAS DETECTION INSTRUMENTS CONNECTED TO THE SYSTEM MUST BE FMRC APPROVED.*

It is a violation of the FM Approval to set any combustible gas monitoring threshold above 60% LEL (LFL).

AMZ self-test should be performed when periodic calibration is due on the attendant sensor.

## DUCT GAS DETECTOR:

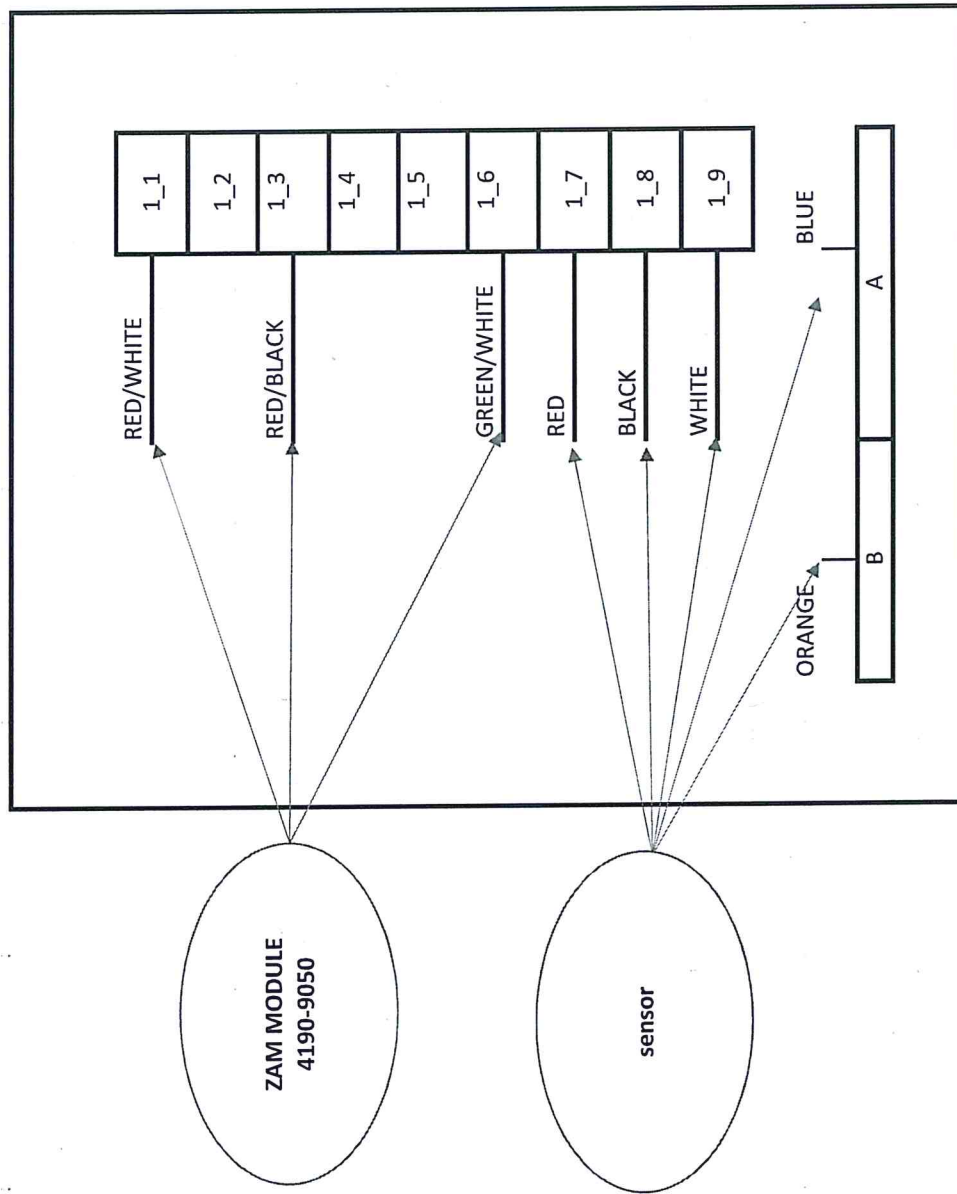
XNX TRANSMITTER 2108N4110N





## HYDROGEN GAS DETECTOR:

XNX TRANSMITTER XNX-UTSV-NNCBA



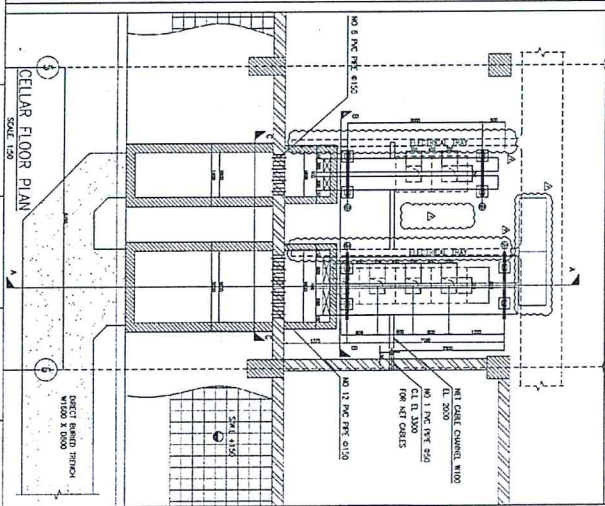
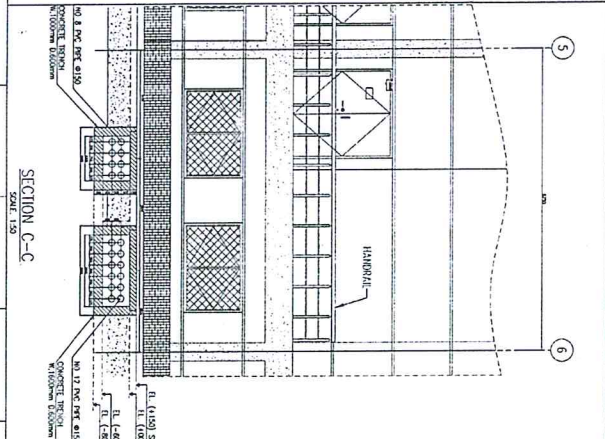
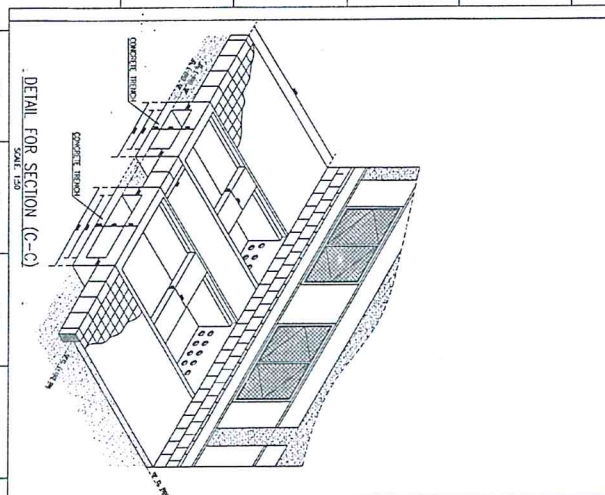
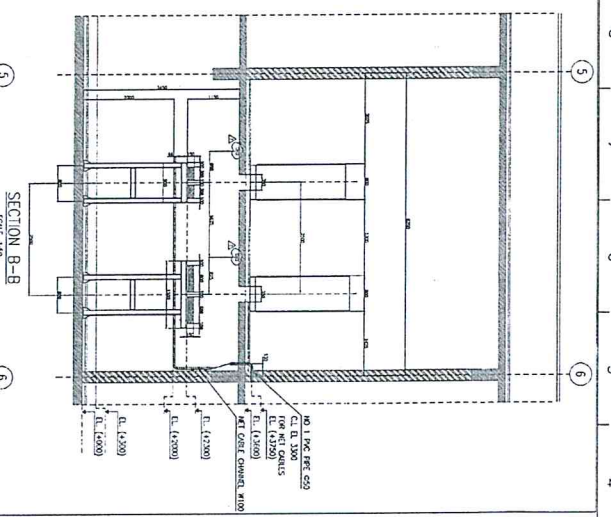
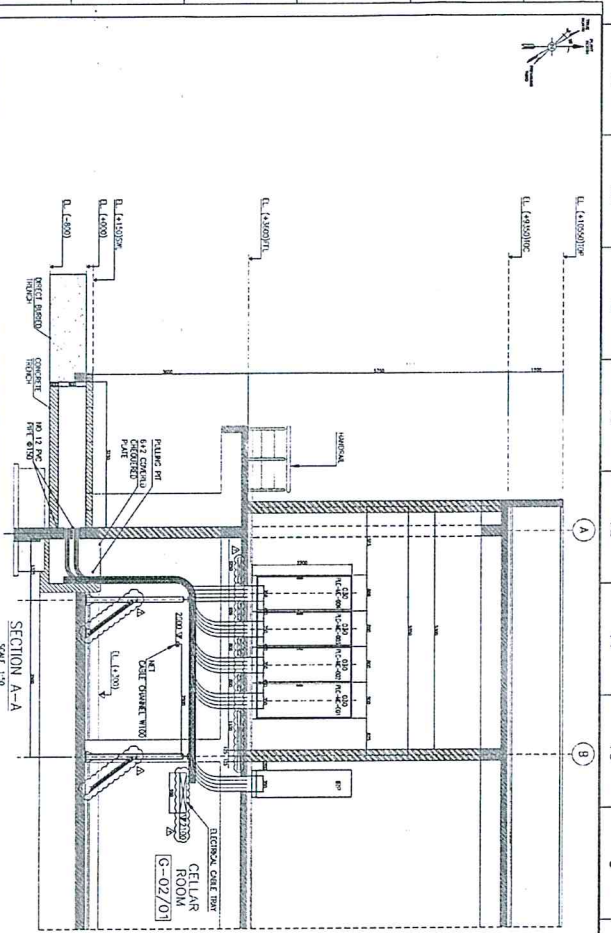


Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.05- Electrical Cables Laying Certificates



DOCUMENT NUMBER	DESCRIPTION
01251-100-030-020-222	SECTION AND CONTROL ROOM CELLAR FLOOR PLAN (REV.01)
01251-100-030-020-001	CONTROL ROOM ELECTRICAL CABLE TRAY (REV.01)
01251-100-030-020-002	SECTION ELECTRICAL CABLE TRAY (REV.01)

1. ALL DIMENSIONS AND LEVELS ARE IN MILLIMETERS.

LEGEND

- CABLE (800x100mm)
- NET CABLE CHANNEL (W100mm)
- CABLE TRAY RISER
- CONCRETE TRAY
- DIRECT BURIED TRENCH
- NET CABLE TRAY
- RIS CABLE TRAY
- ELECTRICAL CABLE TRAY

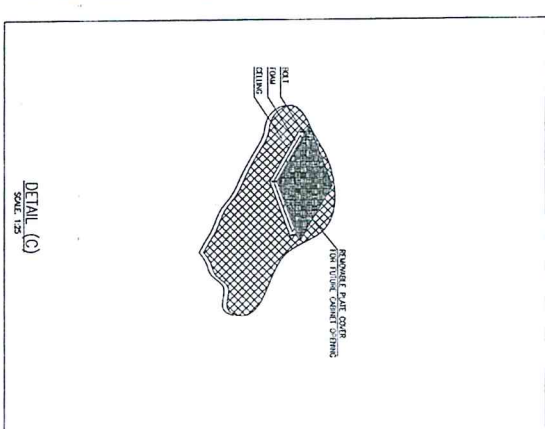
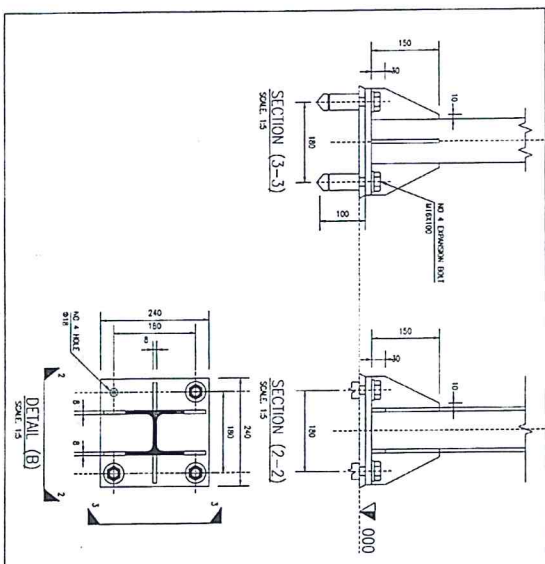
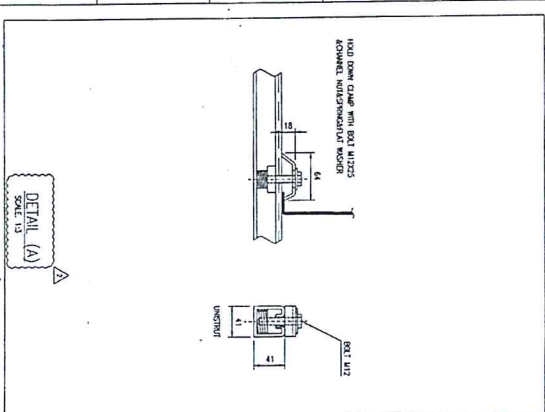
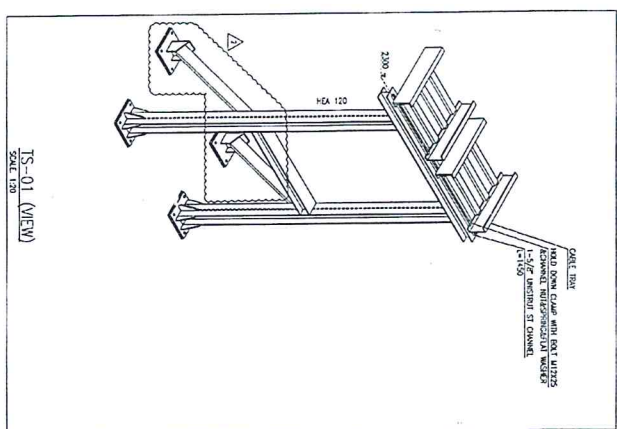
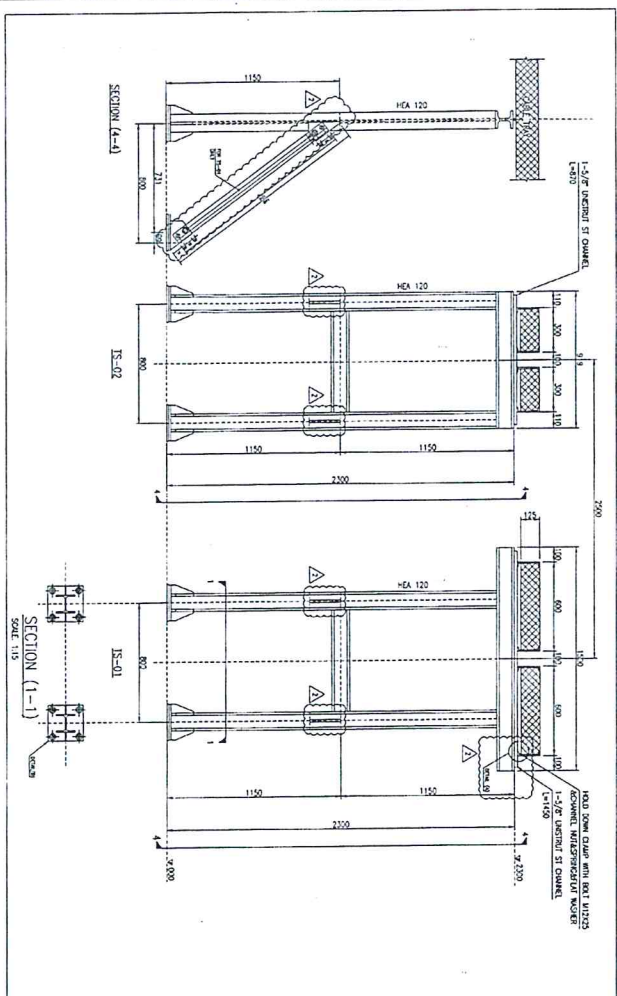
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5	NET CABLE CHANNEL W100	MT	1.000	
6	NET CABLE CHANNEL W100	MT	1.000	
7	NET CABLE CHANNEL W100	MT	1.000	
8	NET CABLE CHANNEL W100	MT	1.000	
9	NET CABLE CHANNEL W100	MT	1.000	
10	NET CABLE CHANNEL W100	MT	1.000	

**EGPC**  
THE EGYPTIAN GENERAL PETROLEUM CO.  
EGPC





**CRUDE OIL TANK PROJECT**  
CONTROL ROOM CABLE ROUTING LAYOUT  
ASROD AREA (MODULE-1)

**EGPC**  
ENGINEERING, PROCUREMENT AND CONSTRUCTION  
SCALE: 1:50  
01251-100-030-020-002 1 OF 2






REFERENCES	
DOCUMENT NUMBER	DESCRIPTION
0123-100-010-00-012	GENERAL WORK DATA REQUEST FORM (PART 101 - 10000 AND PART 11-0102)
NOTES	
1. ALL DIMENSIONS AND LEVELS ARE IN MILLIMETERS.	

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	CABLE TRAY RISER
	CONCRETE REINFORC
	DIRECT BURIED TRENCH
02020	NET CABLE TRAY
020	FOS CABLE TRAY
0202	ELECTRICAL CABLE TRAY

2	70	EQUL FOR CONSTRUCTION	MKT	<del>WHEE</del>	PANOLA
1	90	EQUL FOR CONSTRUCTION	MKT	WHEE	PANOLA
0	18	EQUL FOR CONSTRUCTION	MKT	WHEE	PANOLA
ALL			PR	CHECKED	APPROVED

<p>المدينة العامة - السعودية الجبيل</p> <p>EGPC</p> <p>THE GULF PETROLEUM CENTRAL PETROLEUM CO.</p> <p>EGPC</p>		<p>FOR : EGPC</p> <p>DATE: 04/06/2004</p> <p>BY: 0231-102</p>	<p>لاجل المينة العامة الجبيل</p> <p>مخرج المينة</p> <p>البرق</p>
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CRUDE OIL TANK PROJECT  
CONTROL ROOM CABLE ROUTING LAYOUT  
AGROOD AREA (MODULE-1)

	01251-100-030-JBD-002	2 OF 2	2
SCALE	DRAWING NUMBER	SHEET	REVISION
AS SHOWN			



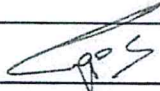


Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.06- Electrical Cables Testing Certificates

ITR-QC-0001

DATE		SIGNATURE		NAME																																																											
				M. Elmaghrabi																																																											
PETROJET		ENPPI		PMC																																																											
NOTE: Inspection result: A - Approved B - Reject C - Approved with Comment																																																															
<table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>LOCATION</th> <th>DATE / TIME</th> <th>PETROJET</th> <th>ENPPI</th> <th>PMC</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr><td>1</td><td>030-SUB-SD-022</td><td rowspan="22">MODULE 1</td><td rowspan="22">26-Jul-21</td><td rowspan="22"></td><td rowspan="22"></td><td rowspan="22"></td><td rowspan="22"></td></tr> <tr><td>2</td><td>030-SUB-SD-023</td></tr> <tr><td>3</td><td>030-SUB-SD-024</td></tr> <tr><td>4</td><td>030-SUB-SD-025</td></tr> <tr><td>5</td><td>030-SUB-SD-026</td></tr> <tr><td>6</td><td>030-SUB-SD-027</td></tr> <tr><td>7</td><td>030-SUB-SD-028</td></tr> <tr><td>8</td><td>030-SUB-SD-029</td></tr> <tr><td>9</td><td>030-SUB-SD-030</td></tr> <tr><td>10</td><td>030-SUB-SD-031</td></tr> <tr><td>11</td><td>030-SUB-SD-032</td></tr> <tr><td>12</td><td>030-SUB-SD-034</td></tr> <tr><td>13</td><td>030-SUB-SD-035</td></tr> <tr><td>14</td><td>030-SUB-SD-036</td></tr> <tr><td>15</td><td>030-SUB-SD-037</td></tr> <tr><td>16</td><td>030-SUB-SD-038</td></tr> <tr><td>17</td><td>030-SUB-SD-039</td></tr> <tr><td>18</td><td>030-SUB-AS-001</td></tr> <tr><td>19</td><td>030-SUB-AS-002</td></tr> <tr><td>20</td><td>030-SUB-AS-003</td></tr> <tr><td>21</td><td>030-SUB-AS-004</td></tr> <tr><td>22</td><td>030-SUB-AS-005</td></tr> </tbody> </table>						NO.	DESCRIPTION	LOCATION	DATE / TIME	PETROJET	ENPPI	PMC	REMARKS	1	030-SUB-SD-022	MODULE 1	26-Jul-21					2	030-SUB-SD-023	3	030-SUB-SD-024	4	030-SUB-SD-025	5	030-SUB-SD-026	6	030-SUB-SD-027	7	030-SUB-SD-028	8	030-SUB-SD-029	9	030-SUB-SD-030	10	030-SUB-SD-031	11	030-SUB-SD-032	12	030-SUB-SD-034	13	030-SUB-SD-035	14	030-SUB-SD-036	15	030-SUB-SD-037	16	030-SUB-SD-038	17	030-SUB-SD-039	18	030-SUB-AS-001	19	030-SUB-AS-002	20	030-SUB-AS-003	21	030-SUB-AS-004	22	030-SUB-AS-005
NO.	DESCRIPTION	LOCATION	DATE / TIME	PETROJET	ENPPI	PMC	REMARKS																																																								
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22	030-SUB-AS-005																																																														
ACTIVITY : INSTRUMENT INSTALLATION NOTIFICATION NO. : PTJ-INS-RFI-111 DISCIPLINE : E&I DATE : 7/26/2021																																																															
REQUEST FOR INSPECTION																																																															
Owner : Egyptian General Petroleum Corporation (EGPC) Project No: 01251-100-030 Revision No: 00																																																															
Contractor : CONSORTIUM (ENPPI / PETROJET) Document No: ITR-QC-0001																																																															
				EGPC CRUDE OIL TANK FARM																																																											



**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**Project No: 01251-100-030  
:01251-100-031Contractor **CONSORTIUM (ENPPI / PETROJET)**Document No: ITR-QC-0001  
Revision No. : 00**REQUEST FOR INSPECTION**ACTIVITY : **INSTRUMENT INSTALLATION**NOTIFICATION NO. : **PTJ-INS-RFI- 111** DISCIPLINE : **E&I**DATE : **7/26/2021**

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
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1	030-SUB-SD-001						
2	030-SUB-SD-002						
3	030-SUB-SD-003						
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18	030-SUB-SD-018						
19	030-SUB-SD-019						
20	030-SUB-SD-020						
21	030-SUB-SD-021						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

ITR-QC-0001

**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**

Project No: 01251-100-030

:01251-100-031

Contractor **CONSORTIUM (ENPPI / PETROJET)**

Document No: ITR-QC-0001

Revision No. : 00

**REQUEST FOR INSPECTION****INSTRUMENT INSTALLATION**

ACTIVITY :

NOTIFICATION NO. : **PTJ-INS-RFI- 111**DISCIPLINE : **E&I**DATE : **7/26/2021**

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
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3	030-SUB-VB-005						
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5	030-SUB-VB-007						
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11	030-SUB-HD-004						
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**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :		<b>@ Islam Sherif</b>	<b>Mohamed omar</b>
SIGNATURE			<b>M. omar</b>
DATE			

ITR-QC-0001



## INSPECTION AND TEST REPORT FOR

## INSTRUMENT INSTALLATION

INSPECTION REPORT NUMBER

RJI-111

INSPECTION DATE &amp; TIME

ITR NUMBER

ITR-IC-0001

DISPLINE

F&amp;G

SHEET NO

10

JOB DESCRIPTION

AREA DESCRIPTION

ENGINEERING DOCUMENT NUMBER

SYSTEM NUMBER(IF APPLICABLE)

SUBCONTRACTOR/SUPPLIER


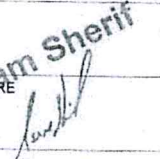
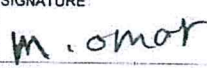
ITEM / TAG NO.

TYPE

NO.	INSPECTION	RESULT		
		ACCEPT	REJECT	N/A.
1	No physical damage are found	✓		
2	Type / size / location as per drawings and vendor data sheet	✓		
3	Identification / name plate attached correctly	✓		
4	Stanchion type / mounting as per drawings	✓		
5	Welding (if required) and touch up			✓
6	Anchor bolting / Bolt tightening			✓
7	Grouting (if required)			✓
8	Orientation / direction as per drawings	✓		
9	Accessibility	✓		
10	Assembling compartments properly installed	✓		
11	Earthing and bonding properly installed	✓		
12	Cleanliness	✓		

REMARKS:

REFERENCE DOCUMENTS:

SUBCONTRACTOR		CONTRACTOR QC		TPI (if required)	COMPANY	
NAME		NAME		NAME	NAME	
SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE
DATE		DATE		DATE		DATE

ITR-CI-0001



**Enppi****EGPC CRUDE OIL TANK FARM**

Owner :

Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030  
:01251-100-031

Contractor

CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0001  
Revision No. : 00**REQUEST FOR INSPECTION****INSTRUMENT INSTALLATION**

ACTIVITY :

NOTIFICATION NO. : PTJ-INS-RFI- 111 DISCIPLINE : E&amp;I

DATE : 7/26/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
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20	030-SUB-VB-001						
21	030-SUB-VB-002						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			mohamed omor
SIGNATURE			m. omor
DATE			

ITR-QC-0001

**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**Project No: 01251-100-030  
:01251-100-031Contractor : **CONSORTIUM (ENPPI / PETROJET)**Document No: ITR-QC-0001  
Revision No. : 00**REQUEST FOR INSPECTION**ACTIVITY : **INSTRUMENT INSTALLATION**NOTIFICATION NO. : **PTJ-INS-RFI- 111** DISCIPLINE : **E&I**DATE : **7/26/2021**

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INSTRUMENT INSTALLATION	MODULE 1	26-Jul-21				
1	030-SUB-GD-001						
2	030-SUB-GD-002						
3	030-SUB-GD-003						
4	030-SUB-GD-004						
5	030-SUB-SD-040						
6	030-SUB-SD-041						
7	FIM	NUMBER = 7					
8	RM	NUMBER = 11	RELEASE MODULE				
9	RM	NUMBER = 1	RELAY MODULE				
10	CM	NUMBER = 21					
11	MM	NUMBER = 57					
12	MM (IS)	NUMBER = 3					
13	ZAM	NUMBER = 4					
14							
15							
16							
17							
18							
19							
20							
21							

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			Mohamed Omar
SIGNATURE	<i>Sob</i>	® Islam Sherif	M. Omar
DATE			

ITR-QC-0001





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.07- Electrical Cables Termination Certificates



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner: Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor: CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003  
Revision No.: 02**REQUEST FOR INSPECTION**

ACTIVITY: INS TERMINATION

NOTIFICATION NO.: PTJ-INST-RFI- 118 DISCIPLINE: FIRE ALARM

DATE:

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	FACP-SLC-2 / 030-SUB-FIM-001						
2	030-SUB-FIM-001 / 030-SUB-HD-007						
3	030-SUB-HD-007 / 030-SUB-SD-039						
4	030-SUB-SD-039 / 030-SUB-SL-003						
5	030-SUB-SL-003 / 030-SUB-SD-038						
6	030-SUB-SD-038 / 030-SUB-VB-009						
7	030-SUB-VB-009 / 030-SUB-HR-011						
8	030-SUB-HR-011 / 030-SUB-MR-008						
9	030-SUB-MR-008 / 030-SUB-AS-007						
10	030-SUB-AS-007 / 030-SUB-SL-002						
11	030-SUB-SL-002 / 030-SUB-SD-037						
12	030-SUB-SD-037 / 030-SUB-VB-008						
13	030-SUB-VB-008 / 030-SUB-HR-010						
14	030-SUB-HR-010 / 030-SUB-HR-009						
15	030-SUB-HR-009 / 030-SUB-MR-007						
16	030-SUB-MR-007 / 030-SUB-AS-006						
17	030-SUB-AS-006 / 030-SUB-SD-036						
18	030-SUB-SD-036 / 030-SUB-SD-035						
19	030-SUB-SD-035 / 030-SUB-SD-034						
20	030-SUB-SD-034 / 030-SUB-MCP-003						
21	030-SUB-MCP-003 / 030-SUB-HR-008						
22	030-SUB-HR-008 / 030-SUB-VB-007						
23	030-SUB-VB-007 / 030-SUB-MR-006						
24	030-SUB-MR-006 / 030-SUB-AS-005						
25	030-SUB-AS-005 / 030-SUB-SD-033						
26	030-SUB-SD-033 / 030-SUB-GD-003						
27	030-SUB-GD-003 / 030-SUB-SD-032						
28	030-SUB-SD-032 / 030-SUB-SD-031						
29	030-SUB-SD-031 / 030-SUB-GD-004						
30	030-SUB-GD-004 / 030-SUB-FIM-002						
31	030-SUB-FIM-002 / 030-SUB-SD-020						
32	030-SUB-SD-020 / 030-SUB-SD-019						
33	030-SUB-SD-019 / 030-SUB-AS-003						
34	030-SUB-AS-003 / 030-SUB-MR-004						
35	030-SUB-MR-004 / 030-SUB-VB-004						

**NOTE:**

Inspection result: A - Approved B - Reject C - Approved with Comment

Cable enclosure cover to be installed.

NAME:	PETROJET	ENPPI	PMC
SIGNATURE	<i>Sobh</i>	<i>Islam Sherif</i>	Mohamed Omar
DATE			M. Omar
			12/9/2011



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner: Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor: CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003  
Revision No.: 2**REQUEST FOR INSPECTION**

ACTIVITY: INS TERMINATION

NOTIFICATION NO. : PTJ-INST-RFI-117 DISCIPLINE: FIRE ALARM

DATE: :

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	030-SUB-VB-004 / 030-SUB-HR-006						
2	030-SUB-HR-006 / 030-SUB-SD-021						
3	030-SUB-SD-021 / 030-SUB-SD-022						
4	030-SUB-SD-022 / 030-SUB-SD-024						
5	030-SUB-SD-024 / 030-SUB-SD-023						
6	030-SUB-SD-023 / 030-SUB-VB-005						
7	030-SUB-VB-005 / 030-SUB-SD-025						
8	030-SUB-SD-025 / 030-SUB-SD-026						
9	030-SUB-SD-026 / 030-SUB-SD-028						
10	030-SUB-SD-028 / 030-SUB-SD-027						
11	030-SUB-SD-027 / 030-SUB-SD-029						
12	030-SUB-SD-029 / 030-SUB-VB-006						
13	030-SUB-VB-006 / 030-SUB-HR-007						
14	030-SUB-HR-007 / 030-SUB-AS-004						
15	030-SUB-AS-004 / 030-SUB-MR-005						
16	030-SUB-MR-005 / 030-SUB-SD-030						
17	030-SUB-SD-030 / 030-SUB-SL-001						
18	030-SUB-SL-001 / 030-SUB-FIM-003						
19	030-SUB-FIM-003 / 030-SUB-SD-012						
20	030-SUB-SD-012 / 030-SUB-SD-010						
21	030-SUB-SD-010 / 030-SUB-SD-017						
22	030-SUB-SD-017 / 030-SUB-HR-005						
23	030-SUB-HR-005 / 030-SUB-SD-016						
24	030-SUB-SD-016 / 030-SUB-SD-008						
25	030-SUB-SD-008 / 030-SUB-SD-006						
26	030-SUB-SD-006 / 030-SUB-SD-015						
27	030-SUB-SD-015 / 030-SUB-SD-014						
28	030-SUB-SD-014 / 030-SUB-SD-004						
29	030-SUB-SD-004 / 030-SUB-SD-002						
30	030-SUB-SD-002 / 030-SUB-SD-013						
31	030-SUB-SD-013 / 030-SUB-MR-003						
32	030-SUB-MR-003 / 030-SUB-AS-002						
33	030-SUB-AS-002 / 030-SUB-SD-001						
34	030-SUB-SD-001 / 030-SUB-VB-003						
35	030-SUB-VB-003 / 030-SUB-HR-004						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME:			
SIGNATURE			
DATE			12/9/2021



**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**

Project No: 01251-100-030

Contractor **CONSORTIUM (ENPPI / PETROJET)**Document No: ITR-QC-0003  
Revision No. : 2**REQUEST FOR INSPECTION**ACTIVITY : **INS TERMINATION**NOTIFICATION NO. : **PTJ-INST-RFI-118** DISCIPLINE : **FIRE ALARM**

DATE : \_\_\_\_\_

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	<b>INS TERMINATION</b>	<b>SUBSTATION AND CONTROL BUILDING/AGROOD-2</b>					
1	030-SUB-HR-004 / 030-SUB-SD-003						
2	030-SUB-SD-003 / 030-SUB-HD-002						
3	030-SUB-HD-002 / 030-SUB-HD-001						
4	030-SUB-HD-001 / 030-SUB-MR-001						
5	030-SUB-MR-001 / 030-SUB-HR-001						
6	030-SUB-HR-001 / 030-SUB-HD-003						
7	030-SUB-HD-003 / 030-SUB-HD-004						
8	030-SUB-HD-004 / 030-SUB-SD-005						
9	030-SUB-SD-005 / 030-SUB-VB-002						
10	030-SUB-VB-002 / 030-SUB-SD-007						
11	030-SUB-SD-007 / 030-SUB-HD-005						
12	030-SUB-HD-005 / 030-SUB-MCP-001						
13	030-SUB-MCP-001 / 030-SUB-HR-002						
14	030-SUB-HR-002 / 030-SUB-HD-006						
15	030-SUB-HD-006 / 030-SUB-MCP-002						
16	030-SUB-MCP-002 / 030-SUB-SD-009						
17	030-SUB-SD-009 / 030-SUB-SD-018						
18	030-SUB-SD-018 / 030-SUB-GD-002						
19	030-SUB-GD-002 / 030-SUB-GD-001						
20	030-SUB-GD-001 / 030-SUB-SD-040						
21	030-SUB-SD-040 / 030-SUB-SD-041						
22	030-SUB-SD-041 / 030-SUB-MR-002						
23	030-SUB-MR-002 / 030-SUB-AS-001						
24	030-SUB-AS-001 / 030-SUB-SD-011						
25	030-SUB-SD-011 / 030-SUB-VB-001						
26	030-SUB-VB-001 / 030-SUB-HR-003						
27	030-SUB-HR-003 / 030-SUB-FIM-004						
28	030-SUB-FIM-004 / PIS-016						
29	PIS-016/PIS-019						
30	PIS-019/PSL-019						
31	PSL-019/PSL-016						
32	PSL-016/PSL-018						
33	PSL-018/PSL-015						
34	PSL-015/PIS-015						
35	PIS-015/PIS-018						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE	<i>Sobh</i>	<i>Islam Sherif</i>	<i>Mohamed amar</i>
DATE			<i>m. amar</i> <i>12/9/2021</i>



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor : CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003  
Revision No. : 2**REQUEST FOR INSPECTION**

ACTIVITY : INS TERMINATION

NOTIFICATION NO. : PTJ-INST-RFI- 118 DISCIPLINE : FIRE ALARM

DATE :

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	PIS-018/PS-004						
2	PS-004/PIS-014						
3	PIS-014/PIS-017						
4	PIS-017/PSL-017						
5	PSL-017/PSL-014						
6	PSL-014/PIS-001						
7	PIS-001/PIS-002						
8	PIS-002/PSL-001						
9	PSL-001/PSL-002						
10	PSL-002/PIS-003						
11	PIS-003/PIS-004						
12	PIS-004/FIM-005						
13	FIM-005/PSL-007						
14	PSL-007/PS-001						
15	PS-001/PS-002						
16	PS-002/PIS-007						
17	PIS-007/PIS-012						
18	PIS-012/PIS-013						
19	PIS-013/PIS-009						
20	PIS-009/PSL-008						
21	PSL-008/PS-003						
22	PS-003/PS-005						
23	PS-005/FIM-006						
24	FIM-006/PIS-006						
25	PIS-006/PIS-011						
26	PIS-011/PIS-005						
27	PIS-005/PIS-010						
28	PIS-010/FIM-007						
29	FIM-007/ RM CONTROL RM						
30	RM CONTROL RM/ RM TELECOM RM						
31	RM TELECOM RM/RM BATTERY RM						
32	RM BATTERY RM/RM PILOT CYLINDERS						
33	RM PILOT CYLINDERS/RM SWITCHGEAR						
34	RM SWITCHGEAR/RM SWITCHGEAR						
35	RM SWITCHGEAR/RM SWITCHGEAR						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :		® Istia Sherif	
SIGNATURE	Sobh		Mohamed Omar
DATE			M. Omar
			12/9/2021



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor : CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003

Revision No. : 2

**REQUEST FOR INSPECTION**

ACTIVITY : INS TERMINATION

NOTIFICATION NO. : PTJ-INST-RFI- 118 DISCIPLINE : FIRE ALARM

DATE :

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	RM SWITCH GEAR RM / RM CELLAR RM						
2	RM CELLAR RM /RM CELLAR RM						
3	RM CELLAR RM /RM CELLAR RM						
4	RM CELLAR RM/ RM 030-SV-002						
5	RM 030-SV-002 / FACP-SLC-2						
6	FACP-SIG-39/ 030-SUB-SL-003						
7	030-SUB-SL-003 / 030-SUB-VB-009						
8	030-SUB-VB-009 / 030-SUB-HR-011						
9	030-SUB-HR-011 / 030-SUB-HR-010						
10	030-SUB-HR-010 / 030-SUB-VB-008						
11	FACP-SIG-41 / 030-SUB-HR-009						
12	030-SUB-HR-009 / 030-SUB-HR-008						
13	030-SUB-HR-008 / 030-SUB-VB-004						
14	030-SUB-VB-004 / 030-SUB-HR-006						
15	030-SUB-HR-006 / 030-SUB-VB-005						
16	FACP-SIG-15 / 030-SUB-SD-033						
17	030-SUB-SD-033 / 030-SUB-GD-003						
18	030-SUB-GD-003 / 030-SUB-SD-032						
19	030-SUB-SD-032 / 030-SUB-SD-031						
20	030-SUB-SD-031 / 030-SUB-GD-004						
21	FACP-SIG-44 / 030-SUB-VB-007						
22	FACP-SIG-40 / 030-SUB-VB-006						
23	030-SUB-VB-006 / 030-SUB-HR-007						
24	030-SUB-HR-007 / 030-SUB-SL-001						
25	030-SUB-SL-001 / 030-SUB-SL-002						
26	FACP-SIG-18 / 030-SUB-GD-002						
27	030-SUB-GD-002 / 030-SUB-GD-001						
28	FACP-SIG-42/ 030-SUB-HR-002						
29	030-SUB-HR-002 / 030-SUB-VB-002						
30	030-SUB-VB-002 / 030-SUB-HR-001						
31	FACP-SIG-43 / 030-SUB-HR-003						
32	030-SUB-HR-003 / 030-SUB-VB-001						
33	030-SUB-VB-001 / 030-SUB-HR-005						
34	030-SUB-HR-005 / 030-SUB-VB-003						
35	030-SUB-VB-003 / 030-SUB-HR-004						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE	<i>Sobh</i>	<i>Islam Shent</i>	<i>Mohamed amar</i>
DATE			<i>M. amar</i>
			<i>12/9/2021</i>



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor : CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003  
Revision No. : 2**REQUEST FOR INSPECTION**

ACTIVITY : INS TERMINATION

NOTIFICATION NO. : PTJ-INST-RFI- 118 DISCIPLINE : FIRE ALARM

DATE :

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	FACP-SIG16 / PSL-007						
2	FACP-SIG17 / PSL-008						
3	PSL-008 / PSL-002						
4	PSL-002 / PSL-001						
5	PSL-001 / PSL-017						
6	PSL-017 / PSL-014						
7	PSL-014 / PSL-018						
8	PSL-018 / PSL-015						
9	PSL-015 / PSL-019						
10	PSL-019 / PSL-016						
11	FACP-SIG-21 / CELLAR RM						
12	FACP-SIG-22/ CELLAR RM						
13	FACP-SIG-23/ CELLAR RM						
14	FACP-SIG-24/ SWITCH GEAR RM						
15	FACP-SIG-27 / PILOT CYLINDERS RM						
16	FACP-SIG-28 / 030-SV-002						
17	FACP-SIG-29/ SWITCH GEAR RM						
18	FACP-SIG-33 / SWITCH GEAR RM						
19	FACP-SIG-34 / BATTERY RM						
20	FACP-SIG-35 / TELECOM RM						
21	FACP-SIG-36 / CONTROL RM						
22	RM CELLER ROOM / KMS-002						
23	KMS-002 / M/R-002						
24	M/R-002 / SOV-005						
25	M/R-002 / SOV-010						
26	M/R-002 / SOV-006						
27	M/R-002 / SOV-011						
28	RM CELLER ROOM / KMS-002						
29	KMS-002 / M/R-003						
30	M/R-003 / SOV-007						
31	M/R-003 / SOV-0012						
32	M/R-003 / SOV-009						
33	M/R-003 / SOV-0013						
34	RM SWITCHGEAR / KMS-003						
35							

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE	<i>Sobh</i>	<i>Islam Sherif</i>	<i>Mohamed Omar</i>
DATE			<i>m.omar</i> <i>12/9/2021</i>



**Enppi**

EGPC CRUDE OIL TANK FARM



Owner : Egyptian General Petroleum Corporation (EGPC)

Project No: 01251-100-030

Contractor CONSORTIUM (ENPPI / PETROJET)

Document No: ITR-QC-0003

Revision No. : 2

**REQUEST FOR INSPECTION**

ACTIVITY : INS TERMINATION

NOTIFICATION NO. : PTJ-INST-RFI- 1/8 DISCIPLINE : FIRE ALARM

DATE :

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	INS TERMINATION	SUBSTATION AND CONTROL BUILDING/AGROOD-2					
1	KMS-003 / M/R-002						
2	KMS-003 / M/R-003						
3	RM SWITCHGEAR / KMS-003						
4	RM SWITCHGEAR / SOV-003						
5	RM PILOT CYLINDERS / KMS-001						
6	KMS-001 / M/R-001						
7	M/R-001 /SOV-001						
8	M/R-001 /SOV-002						
9	RM BATTERY RM / KMS-004						
10	KMS-004 / M/R-004						
11	M/R-004 / SOV-017						
12	M/R-004 / SOV-014						
13	RM TELECOM RM / KMS-005						
14	KMS-005 / M/R-005						
15	M/R-005 / SOV-018						
16	M/R-005 / SOV-015						
17	RM CONTROL RM / KMS-006						
18	KMS-006 / M/R-006						
19	M/R-006 / SOV-019						
20	M/R-006 / SOV-016						
21	AUX13 / COMMON FIRE ALARM						
22	AUX14 /CONFIRMED FIRE ALARM						
23	AUX15 / COMMON GAS ALARM						
24	AUX16 /CONFIRMED GAS ALARM						
25	AUX17 / COMMON EXTINGUISHING ALARM						
26	AUX18 / COMMON FAULT ALARM						
27	IO18 / REMOT ACTIVATION FOR TRANS. DELUGE VALVE						
28	AUX11 / HVAC TRIP						
29	AUX10 / START STANDBY FAN						
30	AUX19 / STOP AC BATTERY CHARGEING						
31	AUX20 / STOP DC BATTERY CHARGEING						
32	IO17 / TRANS. PRESSUER SWITCH HIGH						
33	RM CELLER ROOM / SOV-004						
34							
35							

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE	<i>Sobh</i>	<i>Islam Sherif</i>	<i>Mohamed Omar</i>
DATE			<i>M. Omar</i>
			<i>12/9/2021</i>





## EGPC CRUDE OIL TANK FARM



INSPECTION AND TEST REPORT FOR

## CABLE TERMINATION AND SPLICING

INSPECTION REPORT NUMBER

118

INSPECTION DATE &amp; TIME

ITR NUMBER

ITR-EL-0009

SYSTEM NO.:

DISPLINE

ELEC

SHEET NO

1 OF 1

Item/Tag NO.

Type :-

Core:

Size:

NO.	Description of check	RESULT		
		ACCEPT	REJECT	N/A.
1	Check cable glands are correct type and size as per cable schedule.	✓		
2	Check there are no damages to cores, termination chamber layout is satisfactory, core identification is correct, crimped and pins satisfactory.	✓		
3	Check cable tag is done correctly.			
4	Test and confirm conductor, phase continuity.			✓
5	Check insulation resistance test (megger) is completed *I	✓		
6	Check Hi-pot test is completed, only for MV/HV cables **			✓
7	Connect all cores at both ends and confirm all connections are correct as per termination diagram.	✓		✓
8	Confirm spare cores, screens are earthed and conform to design drawings/specifications	✓		
9	Check enclosure cover is installed, no damages and no bolts are missing	X	X	
10	Calibration test certificate of testing equipment to be checked.			✓

Remarks :

enclosure co

NAME :	PETROJET	ENPPI	PMC
SIGNATURE	Sobh	Islam Sherif	m. omor
DATE			

ITR-EL-0009

**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**Project No: 01251-100-030  
:01251-100-031Contractor **CONSORTIUM (ENPPI / PETROJET)**Document No: ITR-QC-0001  
Revision No. : 00**REQUEST FOR INSPECTION**ACTIVITY : Panel InstallationNOTIFICATION NO. : PTJ-RFI-INS- 109 DISCIPLINE : ELECTRICALDATE : 7/26/2021

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
	FIRE ALARM PANEL INSTALLATION	AGROUD MODULE 1 SUB BUILDING	26-Jul-21				
1	030-FACP-001						
2	030-FACP-002						
3	030-FACP-003						

**NOTE:**

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			Mohamed omor
DATE			MA. omor

ITR-QC-0001





## EGPC CRUDE OIL TANK FARM

INSPECTION AND TEST REPORT FOR  
**LVSWG AND PANEL INSTALLATION**INSPECTION REPORT NUMBER  
PTJ-ELE-RFI- 109

INSPECTION DATE &amp; TIME

DOCUMENT No.  
ITR-EL-0012DISCIPLINE  
ELECTRICAL

SHEET NO

JOB DESCRIPTION

AREA DESCRIPTION

AGROUD MODULE 2 SUB BUILDING

Tag No.

Serial No.

NO.	INSPECTION	RESULT		
		ACCEPT	REJECT	N/A.
1	Verify that equipment name plates are according to the corresponding drawing	✓		
2	Inspect physical and mechanical condition of the equipment and all components for clear damage.	✓		
3	Verify appropriate anchorage, required area clearances, physical damage, and correct alignment and cleanliness.	✓		
4	Inspect all doors, panels, and sections for paint, dents, scratches, fit, and missing hardware.	✓		
5	Verify that the barriers and covers are installed correctly.	✓		
6	Verify that filters are in place and all ventilation openings are clear from any kind of obstacles.			✓
7	Verify that main bus bar is connected between the cells.			✓
8	Verify that the earth bar is connected between the cells and connected to the earth.	✓		
9	Verify the tightness of accessible bolted electrical connections using the calibrated torque-wrench method			✓
10	After tightening each electrical connection to the appropriate torque, apply some Varnish between the nut and the screw (or else, between the screw's head and			✓
11	Confirm that lubricants have been correctly applied at the recommended locations.	✓		
12	Inspect all mechanical indicating devices for correct operation.			✓
13	Verify that draw out disconnecting contacts and interlocks function correctly.			✓
14	Verify that fuse and/or circuit breaker size and type correspond to drawings.			✓
15	Verify that current and potential transformer ratios correspond to drawings.			✓
16	Verify that all the interconnection control wires between the cells have been made correctly reference to the control drawings			✓
17	Verify that customer connections to remote power, operators, interlocks, and indicators have been made.	✓		

REMARKS:

REFERENCE DOCUMENTS:

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.08- FAT Reports & Certificates



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.09- SAT Reports & Certificates





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.10- Electrical Pre-Commissioning Check Lists



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 12.11- Electrical Supplier Check Lists & Reports



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID 030-LP-002

System Description Substation building & Guard house FACP Fire detection system

### 13- Electrical Commissioning





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 13.01- Electrical -Commissioning Check Lists



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 13.02- Electrical Supplier Check Lists & Reports



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 14- Red Marked-up Drawings





Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

14.01- P&ID



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

## 14.02- Instrumentation Drawings



Project: 01251-100  
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-LP-002
System Description	Substation building & Guard house FACP Fire detection system

### 14.03- Electrical Drawings